

LITTELL'S LIVING AGE.

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GREETING TO DR. HOLMES, ETC.

LINES OF GREETING TO DR. OLIVER WENDELL HOLMES AT BREAKFAST IN COMBINATION ROOM, ST. JOHN'S COLLEGE, CAMBRIDGE, ENGLAND.

WELCOME, good friend; your hand! now you're in reach of us,

We'll freely say what else were unexpressed; For friend you surely are to all and each of us, And these old walls ne'er held a worthier guest.

No guest more well-beloved, more soul-unbending,

Since the frail Mayflower bore the Pilgrims bold;

Stern hearts, in hard New England still defending

Where'er was best and noblest in the Old.

Here round your chair unseen in gathering number

Strong eager shades, no feeble band nor few,

Ghosts of a fruitful past, awaked from slumber

To give their gracious benison to you.

Says rare Ben Jonson, "Ha! one more good fellow!

'Od's life, we'll add him to our tuneful quire;"

And bids you stay and pass an evening mellow With Herrick, genial soul, and courtly Prior.

Then gentle Wordsworth brings his ghostly greeting

Wafted from northern dales and mountains lone,

Beaming with eye serene for joy at meeting A heart as large and single as his own.

A heart to love mankind with love unchanged,—

No shallow worldling there, nor dried-up don;

But through all moods of human life-strains ranging

From tender Iris to the Young Man John.

In love we greet you, friend; in love we speed you;

For greeting soon is o'er, and parting nigh; And when we see you not, we yet shall read you

In this calm corner, while the world rolls by.

Farewell! By all the benefactors' merits, Who bade us be, and raised our Johnian towers;

By all the joys and griefs mankind inherits, That ever stirred this little world of ours;

By all sweet memory of the saints and sages

Who wrought among us in the days of yore; By youths who, turning now life's early pages,

Ripen to match the worthies gone before,—

On us, oh son of England's greatest daughter, A kindly word from heart and tongue bestow;

Then chase the sunsets o'er the western water, And bear our blessing with you as you go. June 18, 1886. W. E. HEITLAND, Academy.

SAVED BY A SONG

ONLY an old musician

Wasted with cruel care,

Climbing, wearily climbing

A thronging gallery stair;

Only a people's concert

Crowded from roof to floor,

Only a fair girl singing

They never had heard before

Only a brave girl ending

Only an old-world song,

Only a glad girl bowing

To the plaudits loud and long;

Ah! but the same voice lifted

Anew in a strange, sweet strain;

Ah! but a passionate silence

And a rush of tears like rain.

Only a daughter singing

Only that old man's tune,

Ah! but a gush of music

Like the nightingale in June.

Then a sudden storm of cheering

From the heart of that mighty throng,

And a glad girl clasping the father

She has saved by only a song.

ALFRED PERCEVAL GRAVES.

Westhay, Kingston, near Taunton.

TREASURE.

THE flowers I planted in the flush of spring, Have budded, bloomed, and withered long ago;

The grain my lavish fingers used to throw, Long since was reaped for others' garnering;

Yet I am rich amid my nature dearth; My gold is where the rainbow touches earth.

My wealth is molten of full many an ore, Dug from the sacred caverns of the past; Stored where the present's quiet light is cast;

Piled in the promise-land that lies before, All blent together, all of priceless worth,

All hid just where the rainbow touches earth.

And Memory, Faith, and Hope its guardians are,

As holding Love's strong hand I make my way, Knowing I near a little every day,

The one sure goal where, passing o'er the bar I find, in all the glow of second birth,

My treasure, where the rainbow touches earth.

All The Year Round.

From The London Quarterly Review.
LOUIS AGASSIZ.*

LATE in the year 1827 there came a student to the University of Munich—a Swiss pastor's son, who had just completed his twentieth year. He was soon noticeable, not only for great powers of industry and for a friendly, helpful, and cheerful disposition, but for a curious ease and calm in all his doings, unusual at so early an age. He formed at Munich an affectionate intimacy with a young artist named Dinkel, who took good heed of these characteristics in his friend, and who has recorded for us certain significant words that sometimes fell from him. The two comrades often watched together other students, young fellows more eager for amusement than for work, setting off on "empty pleasure-trips," which had no other end but pleasure. "There they go with the other fellows," the young Swiss would say; "their motto is, *Ich gehe mit den andern*. I will go my own way, Mr. Dinkel—and not alone; I will be a leader of others."

It was Jean Louis Rodolphe Agassiz who was wont to say these proud words, which his career fully justified. He did not "go with the others;" both as man and as *savant* he showed himself eminently capable of taking his own way and keeping it. With full consciousness and purpose he chose his path in life—a path of strenuous effort and self-denial, lit by the guiding star of a lofty aim. "I wish it may be said of Louis Agassiz," he wrote to his parents when he stood at the dividing of the ways of life, "that he was the first naturalist of his time, a good citizen and a good son, beloved of those who knew him. I feel within myself the strength of a whole generation to work toward this end, and I will reach it if the means are not wanting." It cannot be said that he fell below these aspirations on any point. Faithful and tender, he fulfilled the duties of life in no grudging spirit, and attracted strong affection from very many; while he kept eye and ear ever open and vigilant to seize and follow

up the delicate clues, unmarked by duller and less wakeful spirits, which led to the secret dwelling-places of great unsuspected truths. These he made known to other men, leading them into fuller knowledge than they had dreamed of. He was rather a master than a disciple.

Louis Agassiz was happy in his origin and early surroundings. His father, a simple Swiss pastor, had a peculiar faculty for instruction, by which his son benefited; his mother seems always to have been in special sympathy with her gifted child, discerning the strong intellectual bias under his childish love for nature, and never thwarting him with small or sordid anxieties. To the last hour of her life—which ended only six years before his own—she remained, not only his tenderest friend, but the one who most perfectly understood him. Both parents were intelligent, refined, and judicious. There is a quite idyllic grace about the picture given us of the boy's natal home in the parsonage at Motier, on the Lake of Morat; and we perceive they were happy children who studied nature in its vineyard and orchard, with the grand outlook over the Bernese Alps, and who picked up skill in small handicrafts from the travelling workmen who went their serviceable rounds from village to village. Louis found this early sportful work very serviceable afterwards; it made his fingers apter for delicate scientific manipulations. Hardly less delightful was the home of the good physician, M. Mayor, the father of Mme. Agassiz, at Cudrefin on the Lake of Neuchâtel, where Louis and his brother Auguste often spent their holidays. Neither house was the abode of wealth; but wealth was hardly missed in the sweet, half-pastoral existence with which their inmates managed to blend much intellectual activity; their simple festivals had an unbought charm of picturesqueness not known in the haunts of luxury.

Louis, with his brother, spent five happy and profitable years at the College of Bienne, studying natural history eagerly on his own account, but profiting much also by the regular instruction of the school. It had been designed that on leaving Bienne he should enter commerce, under his ma-

* *Louis Agassiz: his Life and Correspondence.*
Edited by ELIZABETH CARY AGASSIZ. In two volumes. London: Macmillan & Co. 1885.

ternal uncle, François Mayor. But the lad pleaded for additional years of study, and his parents, acceding easily to his prayer and to the recommendations of his instructors, sent him at the age of fifteen to the College of Lausanne, which he only left to pursue his studies further at Zurich, then at Heidelberg, and then at Munich; Dr. Mathias Mayor, his uncle, and a physician of some note, having recommended the medical profession as best suited to Louis's tastes and ability. M. Agassiz was now pastor of Orbe, which may have been a financial improvement on Motier; but the family purse was a slender one, and Louis's delight in his congenial life was troubled by the knowledge that he lived on the privations of his best friends. They, however, bore the necessary straitnesses with a sweet cheerfulness, and he too looked forward to a day when he should recompense them.

He was now separated from Auguste, his dear fraternal companion. But absence did not impair their attachment; and Louis, whose nature was eminently social, soon made many useful friends in his student life. Chief among these was Alexander Braun, whose passion for botany equalled Agassiz's devotion to zoology; and the two became keenly interested in each other's pursuits, with the result that in after years Braun, director of the botanical gardens in Berlin, knew much more of zoology than did other botanists, while Agassiz, the great naturalist and geologist, had also a wide and deep acquaintance with botany. There is great beauty in the spectacle of their young, candid friendship, forming a centre of attraction to a circle of like-minded students, whose best joys lay in intelligent effort, each doing his utmost to further the attainment of the others. It is a spectacle constantly repeated in the life of the sincere, enthusiastic Agassiz, who had a passion for enlarging the knowledge of his fellows, and who thus appears a true citizen of the wide, free, and tolerant commonwealth of scientific workers, in which the kingliest leader is but *primus inter pares*, and in which there is perhaps less jealousy and grudging, and more frank, loyal, and generous helpfulness, than in

any other brotherhood of men bound together only by common interests and common ambitions.

It was the kindly urgency of Braun which led Agassiz to Munich, where the newly opened university offered extraordinary advantages to the student of the natural sciences. The collections open to the public were very rich; the professors were men of European fame, in the full current of modern intellectual life. One of them, M. Martius, was not long returned from the scientific exploration of Brazil, and gave to Agassiz the rare privilege of studying his magnificent private collection. Louis found his horizon expanding, his views widening and deepening daily, while he studied, experimented, and collected. The room that he occupied with Braun became known as the "little academy," for here he and his friends lectured and worked out of hours, with not less industry than they showed in pursuing the university course. At Munich, therefore, his resolution to devote himself to natural science took final shape.

He startled the home circle with hints of "a work of distinction" that he might produce, of a professorship of natural history that he might perhaps gain; and he had to reassure his parents as to his resolution to pursue his medical studies. In fact, he was actually engaged on the work of which he had vaguely spoken, M. Martius having invited him to furnish the descriptions of fishes needful to complete the great work on the Brazilian fauna begun by the deceased colleague of Martius, M. Spix. Agassiz, whose *forte* was ichthyology, had accepted joyously; he hoped at once to establish a reputation by being associated with this work, and dreamed of surprising his father with a splendid presentation copy of the finished book. The surprise failed through the innocent indiscretion of a friend; but all the other hopes of the young naturalist were realized. His natural history studies were now approved and sanctioned; he was soon able to send the opening volume of his work to charm his father's eyes; and when he presented himself at Orbe for the summer vacation of 1829, he came in all the dignity of doctor of philosophy, having

taken that degree at the instance of M. Martius, but without prejudice to his design of taking out his diploma as doctor of medicine; a design carried out the following year.

It is difficult to say of a nature so grandly self-determining as that of Agassiz, that but for his employment on the great unfinished work of Spix he might never have attained his proud scientific position; but unquestionable the enterprise he undertook so gallantly, careless that it could bring him only fame and no other profit, was serviceable to him exactly as he hoped; and the wide recognition it ensured for his powers justified to his anxious parents the adventurous course into which he launched. He had dedicated the work to Cuvier, as to a revered master and guide; the dedication was acknowledged by the great naturalist in such glowing terms as must have seemed like another more precious diploma to Dr. Agassiz.

The young adventurer had long cherished and had mentioned to Cuvier the plan of a work on the fresh-water fishes of Europe; he and his artist friend Dinkel were already working for it. While studying for his medical diploma, the idea of another great work rose before him and soon enthralled him completely. The director of the museum at Munich put into his hands "the finest collection of fossil fishes in Europe," and the conception of his great monumental book, the "*Poissons Fossiles*," flashed on him, and attracted him irresistibly. Already, at a scientific meeting in Heidelberg, he had been invited to undertake this much-needed work; *then* it was out of his power, *now* it was not. "I should be a fool to let a chance escape me which will certainly not present itself a second time so favorably," he wrote to his parents; and he tried with conscientious care to present the enterprise of publishing two important books, on living and on fossil fish, in the light of a profitable employment of capital. Perhaps the parents both smiled and sighed over his half-pathetic representations, knowing that where science was concerned their son was not likely to practise a narrow econ-

omy or to look for money profit; though his personal habits were of the severest simplicity, and his superb indifference to the vulgar baits and allurements that often ensnare the young, guarded him well against all blamable money expenditure.

But they showed a wise and rare forbearance; they put no veto on his ambitious projects; only their liveliest approval was reserved for his successful study of the profession of medicine for which they had designed him.

In 1830 the university life of Agassiz came to an end. He took his medical degree with brilliant success; he visited Vienna, and there tasted for the first time the pleasures of fame, sweet enough to the young man of twenty-three; but though they delighted they did not intoxicate him who saw far greater achievements awaiting him. The air of Vienna, moreover, was not the air of freedom, and our Swiss could not breathe it without a certain *malaïse*. It seems to have been with but little regret that he left the great city, to embrace the life of a working physician in his father's home, which was now at Concise, on the Lake of Neuchâtel. He had made arrangements with M. Cotta, of Stuttgart, for the publication of his two projected works, and with Dinkel at his side as artistic helper, he pursued his ichthyological studies during most of the year 1831 at Concise, practising medicine as he found opportunity. It was a charming rustic home which he now inhabited, but delightful as it was, and dear as were its inmates, the naturalist soon found it essential to his success to repair to Paris; both his scientific and medical studies called for this step, which was rendered possible to him by the helpful generosity of one or two friends. For at this time Louis Agassiz was very poor, and only his invincible resolution sustained him in his vast enterprise.

That resolution was severely tried in the months he spent at Paris. They offer the gloomiest period in an existence that elsewhere seems bathed in a mild, unclouded sunshine. He found in the great centre of scientific life all the facilities for his work that he had expected; he met courtesy and attention everywhere;

Cuvier and Humboldt treated him as an equal, and did all in their power to promote his researches. But nearer and nearer as the busy days rolled on — his average working day was fifteen hours — nearer and nearer, darker and darker, came the grim shadow of penury, and at last it fell across his path, and seemed like a solid barrier cutting him off from the bright prospect beyond. He saw himself on the point of being compelled to renounce the priceless opportunities he enjoyed in Paris, as well as the important aid of Dinkel. His publisher, on whose advances of money he chiefly depended, remained strangely silent to his applications, backed though they were by Humboldt, who had found out something of Agassiz's difficulties. He was still struggling on, half despairing, when one day in March there came to him a sympathetic letter from Humboldt, enclosing a credit of a thousand francs; the elder *savant* could not see his young fellow-worker thwarted in his vast plans, and in the gracefulest way pressed the advance upon him. The relief was immeasurable; Agassiz knew not how to express his rapture of gratitude, and induced his mother to come to his aid with her womanly eloquence. What she wrote we know not, but the answer her letter won from Humboldt must have been delicious food to her maternal pride.

Agassiz himself seems to have regarded Humboldt thereafter with something of the love of a son, as well as the reverence of a disciple; and the older man evidently took a half-paternal delight thenceforth in Agassiz and his work. It is to the dark Parisian days that belongs a curious dream-story told by Agassiz in his "Poissons Fossiles." For two weeks he had been vainly striving to decipher the somewhat obscure impression of a fossil fish on its stone slab. In the visions of the night the fish appeared to him, twice and thrice, every feature distinct and clear; on the first two occasions the apparition was totally lost to his waking mind; but the third time, having laid paper and pencil ready at his bedside, he traced a rapid outline of the shape that he saw in sleep as soon as he awoke, though still half dreaming and in perfect darkness. In the morning the sketch looked too impossible; but he took it with him to the Jardin des Plantes, and, using it as a guide, succeeded in chiselling away the stone under which portions of the fish remained hidden. Laid bare, it answered point for point to his dream and to his

drawing; now he could classify it easily. He was wont to cite this incident as illustrating aptly the acknowledged fact, that when the body is at rest the tired brain will do the work it refused before; we, too, may use it as a proof how completely this naturalist was absorbed by his work, how it possessed him soul and body. In that absorption lies much of the secret of his success.

Brilliant offers were made to him when he was ready to quit Paris; in particular, he was invited to complete the Cuvierian fishes, left imperfect through the too sudden death of the great French naturalist. He accepted, however, only such portions of that task as were connected with his own special studies; and he turned from other flattering openings to accept a newly erected professorship of natural history at Neuchâtel, annexed to which was the slender salary of eighty louis a year. As a patriot and as a man of science this position pleased him best; Humboldt, too, had recommended him for it, and heartily approved his decision. In the autumn of 1832 he entered on his new duties, to which he brought a skill and an enthusiasm that made him wonderfully successful, and which he declined to relinquish for any other sphere as long as he dwelt in Europe.

Teaching was a passion with him. . . . He was intellectually, as well as socially, a democrat in the best sense. He delighted to scatter broadcast the highest results of thought and research, and to adapt them even to the youngest and most uninformed minds. In his later American travels he would talk of glacial phenomena to the driver of a country stage-coach among the mountains, or to some workmen splitting rock at the roadside; . . . he would take the common fisherman into his scientific confidence, telling him the intimate secrets of fish-structure or fish-embryology, till the man in his turn grew enthusiastic, and began to pour out information from the stores of his rough and untaught habits of observation. Agassiz's general faith in the susceptibility of the popular intelligence, however untrained, to the highest truths of Nature, was contagious, and he created or developed that in which he believed.

At Neuchâtel he remained from 1832 to 1846 — years full of ever-expanding activity and ever-widening fame. The town under his influence became a centre of scientific work, and its museum, built up by his efforts and those of his able co-worker, M. Coulon, became known as one of the best local museums in Europe. Agassiz did not limit himself to his stated classes at the gymnasium; he lectured

out of hours to friends and neighbors; and in later years continued these attractive informal courses for the benefit of his own children and those of others, giving his geological, botanical, zoological instruction preferably in the open air in the course of country excursions — delightful hours these were for the pupils. Agassiz had found it possible to marry in 1833, and thus to fulfil one of his mother's dearest wishes. His bride was Cecile Braun, the sister of his friend Alexander. Her rare artistic talent had long been serviceable to her brother, and it did not prove less so to her husband; some of the best drawings in his two great works on ichthyology are from her hand. Their wedded home was of the simplest, for their means were narrow; but only the wife's delicate health seems to have really clouded their happiness. Cecile died not very long after her husband's removal to America, leaving several children, who ultimately joined their father in his transatlantic home. The death of the elder Agassiz, a loss severely felt by his son, preceded that of Cecile by several years.

The first number of the "Poissons Fossiles" appeared in 1833, and instantly drew the attention of men of science in Europe and beyond it. From the *savants* of France and England, of Germany and America, as well as from those of Switzerland, came congratulations, offers of help, gifts of valuable fossils and drawings. The Geological Society of London conferred on the author the Wollaston prize, in value thirty guineas — a seasonable gift to Agassiz, for the returns from his work came in slowly, and he was feeling perplexity as to how to meet the cost of issuing his second number. The great English naturalists sent pressing invitations to England, where he might profit by their rich fossil collections. He yielded gladly to their urgency, and in 1834 made his first visit to our shores. Lyell and Murchison, Buckland and Sedgwick, Sir Philip Egerton, and the Earl of Enniskillen, vied with each other in welcoming him and in furthering his work. Half bewildered among the vast wealth of material he was made to inspect, he was put at his ease by being allowed to choose, from perhaps sixty collections, two thousand specimens most needful for his work; these being sent up to London were accommodated at Somerset House through the agency of the Geological Society, and the faithful Dinkel was at once set at work on making drawings from them, an operation which employed him some years.

On Agassiz's second visit in 1835 he received the same admiring sympathy, the same liberal help. He was not ungrateful to the generous men who were so eager to serve him; he became knit to them in bonds of life-long friendship. From France itself he had not obtained half the encouragement that England lavished on him.

It was no ordinary work that had awakened this enthusiasm; indeed, its magisterial grandeur is surprising when we think that a man of twenty-three had conceived its plan, that a man of twenty-six was now developing it. On the great principles which he laid down first in the "Poissons Fossiles" all his subsequent zoological effort was based. The faculty of seeing beforehand in large prophetic outline the full scope of the work, which he afterwards wrought out faithfully in all its complete detail, was always a dominant characteristic of his mind, at once far-seeing and patient.

"One single idea," he wrote of the class of organized beings that first expressed the vertebrate plan — the fishes — "one single idea has presided over the development of the whole class; all the deviations lead back to a primary plan; even if the thread seem broken in the present creation, one can reunite it on reaching the domain of fossil ichthyology." Guided by that leading idea, he had boldly remodelled the entire classification of the fishes, living and fossil, separating in particular as a distinct order all the ganoids. He recognized — and by patient demonstration compelled others to recognize — the existence, in the strange reptilian and bird-like combinations of the earlier geological fishes, of what he termed "prophetic" types — "early types, embracing in one large outline features afterwards individualized in special groups, and never again reunited." He discovered and announced also, first of all naturalists, the analogy existing between "the embryological phases of the higher present fishes, and the gradual introduction of the whole type on earth; the series in growth and the series in time revealing a certain mutual correspondence." His later researches did but fix him in the opinions he had expressed in the "Poissons Fossiles" as to the development of the living organisms of our planet.

One may consider it as henceforth proved [he wrote in 1843, when discussing the recent discoveries connected with the fossil fish of the Old Red Sandstone] that the embryo of the fish during its development, the class of fishes

as it at present exists in its numerous families, and the type of fish in its planetary history, exhibit analogous phases, through which one may follow the same creative thought like a guiding thread in the study of the connection between organized beings.

The words "creative thought" in this passage strike the key-note of Agassiz's scientific faith. He believed with a rooted belief impossible to shake in a majestic intelligence, vast as the illimitable universe, ruling over all the varied forms of life in the universe, originating and controlling; he believed passionately in the Divine Creator.

No one saw more clearly than Agassiz the relation which he first pointed out, between the succession of animals of the same type in time and the phases of their embryonic growth to-day, and he often said in his lectures, "The history of the individual is the history of the type." But the coincidence between the geological succession, the embryonic development, the zoological gradation, and the geographical distribution of animals in the past and present rested, according to his belief, upon an intellectual coherence, and not upon a material connection. So, also, the variability, as well as the constancy, of organized beings, at once so plastic and so inflexible, seemed to him controlled by something more than the mechanism of self-adjusting forces.

I find it impossible [he wrote in 1845, to Professor Sedgwick, who was quite in sympathy with him] to attribute the biological phenomena which have been, and still are, going upon the surface of the globe, to the simple action of physical forces. I believe they are due, in their entirety, as well as individually, to the direct intervention of a creative power, acting freely and in an autonomic way.

Agassiz never saw reason to abandon this philosophy, which made him find in the total history of the animal kingdom the working out of a definite plan—the thought of God fulfilling itself in the predetermined order by the operation of the omnipotent will of God. He recognized the law of evolution as a true law, "controlling development, and keeping types within appointed cycles of growth;" but declined to assign to it a loftier position, much to the astonished disappointment of some who desired to appropriate the results of his researches in support of their favorite doctrine. His views on this and cognate points are—as his biographer acknowledges—no longer in vogue, at present. But those who are least disposed to endorse them do not deny that they were held with serious conviction, and based on patient, careful investigation of the evidence. He would have deemed

it a sin to distort or suppress natural facts in support of the best-beloved theory. It is in his last-written scientific paper that we find these memorable words: "A physical fact is as sacred as a moral principle. Our own nature demands from us this double allegiance." Here is the secret of his whole faithful and laborious life. Physical fact and moral principle were to him alike the expression of the mind of God. As such he reverenced them; and he could think no ill-bestowed which tended to make the thought embodied in the fact manifest to his fellows.

The generalizations which Agassiz first announced in the "*Poissons Fossiles*" have not lost their value even to those who do not accept his interpretations of them.

They already form [says his fellow-worker, Arnold Guyot] a code of general laws which has become a foundation for the geological history of the life-system, and which the subsequent investigations of science have only modified and extended, not destroyed. . . . The discovery of these great truths is truly his work; he derived them immediately from Nature by his own observations.

Thus his later zoological studies were directed only to the giving by wider research a yet more solid basis to the grand laws he had seen evidently revealed in nature. "Let us not be astonished that he should have remained faithful to these views to the end of his life. It is because he had *seen* that he *believed*, and such a faith is not easily shaken by new hypotheses." So ends the testimony of Guyot.

The "*Poissons Fossiles*" were not completed until 1843. While this work was still in progress the attention of Agassiz was drawn to a new theory advanced by Charpentier as to the glacial phenomena of movement and transportation in the Alpine valleys. Charpentier attributed to glacial action the distribution of erratic boulders scattered over the plain of Switzerland and on the Jura slopes. Agassiz, at first hostile to this hypothesis, became in 1837 a convert to it, on careful investigation of the facts supporting it; and at the next meeting of the Helvetic Association over which he presided, he astonished the members by an address in which he assigned a cosmic significance to the glacial phenomena, and announced, as his conclusions—

that a great ice period, due to a temporary oscillation of the temperature of the globe, had covered the surface of the earth with a

sheet of ice, extending at least from the North Pole to Central Europe and Asia. . . . Death had then enveloped all Nature in a shroud, and the cold, having reached its highest degree, gave to this mass of ice, at the maximum of tension, the greatest possible hardness. . . . The distribution of erratic boulders was one of the accidents accompanying the vast change occasioned by the fall of the temperature of our globe before the commencement of our epoch.

This new daring theory met at first with the most vigorous opposition. Humboldt disliked it, and at the utmost preserved a decent neutrality towards it; but slowly, one by one, other geologists were won to it. Dr. Buckland first, then Lyell, Murchison, Darwin, gave in their adhesion. Agassiz, with a band of ardent fellow-workers, consecrated to the new theory ten summers of research on the Alpine glaciers, and set forth the results obtained in two important works,—the "Etudes sur les Glaciers" and the "Système Glaçaire." He afterwards followed up these investigations with others prosecuted on the grand area of the American continent, and found no reason to withdraw from the position he had at first assumed; on the contrary, he returned from his last voyage of exploration in South America, in 1872, "convinced that, as a sheet of ice has covered the northern portion of the globe, so a sheet of ice has covered also the southern portion, advancing, in both instances, far toward the equatorial region."

It is noticeable that as Agassiz's zoological theory was foreshadowed in its totality in the preface to the "Poissons Fossiles," so his opening address to the Helvetic Society unfolds the glacial period "much as he saw it at the close of his life after he had studied the phenomena on three continents." Here again is that large and rapid apprehension of the total significance of phenomena which stamps the unmistakable character of genius on this man of science and his work. It were a pleasant task to follow him and his fellow-workers through their daring researches on perilous Alpine heights—a toil renewed during several successive summers; but we must be content with indicating the result of their efforts, as summarized by Arnold Guyot, who shared in them.

The position of eighteen of the most prominent rocks on the Aar glacier was determined by careful triangulation by a skilful engineer, and measured year after year to establish the rate of motion of every part. The differences in the rate of motion in the upper and lower part of the glacier, as well as in different sea-

sons of the year, was ascertained; the amount of the annual melting was computed, and all the phenomena connected with it studied. All the surrounding peaks—the Jungfrau, the Schreckhorn, the Finsteraarhorn, most of them until then reputed unscalable—were ascended, and the limit of glacial action discovered; in short all the physical laws of the glacier were brought to light.

"Do you think any position would be open to me in the United States where I might earn enough to enable me to continue the publication of my unhappy books?" wrote Agassiz in 1843 to Charles Bonaparte, prince of Canino, who had been urging that the professor should make a journey of scientific exploration with him in America. The great naturalist was becoming crushed under his immense labors, as Humboldt had foretold. His professorial duties represented hardly a tithe of his work, and though the king of Prussia by a gift of £200 had facilitated his glacier research, he had other undertakings on foot that absorbed money promptly and made small return of profit. Ill satisfied with the plan of having his illustrations produced in distant Munich, he had set up a lithographic establishment of his own in Neuchâtel, which did the work exquisitely, but cost him much, and required constant supervision; he was still producing his "Fossil and Fresh-water Fishes," his investigations on echinoderms and mollusks, and also two important, but dry and therefore little popular, serial publications, the "Nomenclator Zoologicus," and "Bibliographia Zoologiae et Geologiae." America invited him more and more; it would be a magnificent field for exploration, it might enable him to redeem his financial position without sacrifice of his beloved works. A gift of fifteen thousand francs from the king of Prussia, granted through the representations of Humboldt, opened the way for Agassiz to realize his hope. He resolved not to depart till he had completed his works and arranged for the welfare of the institution with which he was connected in Neuchâtel; but by prodigious efforts he was able to sail for the United States in September, 1846. "You treat this journey as if it was for life," Humboldt had remonstrated, seeing how earnestly Agassiz was "setting his house in order," in preparation for it. The journey was for life, little as either friend dreamed it. Agassiz came once to Europe for a few weeks, in 1859; but his home was thenceforth in the western world.

Lyell, whom he had consulted, had encouraged him to think that he would find success in the United States as a public lecturer, so he had entered into arrangements for beginning his American tour with a course of lectures before the Lowell Institute in Boston. His success was so great as to justify the giving of a second course on glaciers. The simplicity of his style, almost devoid of technicalities, his frank enthusiasm, his skill in illustrative design, were exactly suited to an audience formed on purely democratic principles; even his foreign accent and faulty English had their charm. On his side, too, the lecturer was strongly attracted. It was now that he first came into contact with the general mass of the people — a people, too, already intelligent, and eager for further instruction.

The strength of America [he said] lies in the prodigious number of individuals who think and work at the same time. I should try in vain to give you an idea of this great nation, passing from childhood to maturity with the faults of spoiled children, and yet with the nobility of character and the enthusiasm of youth.

Agassiz soon felt the desire to aid in the scientific education of this splendid adolescent, to teach it to think and investigate for itself, to break the fetters which seemed to restrain it of a too anxious deference to European and especially to English opinion.

Unexpected events rendered it possible for him to promote that emancipation. The wild year 1848 broke the ties which bound the canton of Neuchâtel to the Prussian monarchy, and consequently the Neuchâtelois Agassiz found himself honorably set free from the service of the Prussian king. At the same time the chair of natural history in the Lawrence Scientific School was offered to him by the founder of that institution, which was directly connected with Harvard University. A guaranteed salary of fifteen hundred dollars was annexed to this professorship, and its holder was allowed entire liberty as to lectures elsewhere. The seasonable offer was accepted, and Agassiz took up his abode at Cambridge, Massachusetts, where he found himself surrounded by perhaps the most brilliant circle America has ever known, including the best scholarship and authorship of Boston, as well as of Cambridge. If Longfellow and Lowell dwelt in the latter town, Prescott, Motley, and Holmes belonged to the former; the influence of Emerson was potent in both places; and Harvard could

boast names of high scientific standing among its professors. Agassiz with his beautiful winning nature and his wide intelligence quickly became a cherished member of this brotherhood, as some exquisite verses, known to the lovers of Longfellow's charming muse, evidenced long since to unscientific English readers. The ties that bound him to his new position were riveted by his marriage in 1850 to an American lady, Elizabeth Cabot Cary, of Boston, in whom he found a fitting helpmeet. The high quality of her mind is evident in the two volumes now under our consideration, which she has consecrated to his memory, and which, in spite of her modest self-suppression, show inevitably that this second marriage was of invaluable benefit to him. We are allowed some transient glimpses of the delightful home she created for him and his motherless children, and we find that by setting on foot a high-class school for girls, which was continued successfully during eight years, she freed him from the money difficulties in which the production of his immortal works had long involved him. She is, however, careful to show that his share was large in the success of her scheme; it was he, she tells us, who traced the grand plan of education which gave the school its exceptional character, and he was active also in carrying it out.

America proved a magnificent patroness to her adopted son. In fact, the story of Agassiz's later years shows us the New World under a noble and hopeful aspect, agreeably surprising to minds habituated to regard the great West merely as the paradise of money-getting. It is impossible to reproduce the charming picture, but we may touch on some of its striking points. First, the naturalist found a wider public, and one less frugally minded as to its outlay on scientific literature than that he had formerly addressed. He was surprised and delighted by the reception accorded to his last great work, "Contributions to the Natural History of the United States." He had calculated that perhaps five hundred copies of this expensive book might be subscribed for, but seventeen hundred subscribers at once came forward, and even then the list was not closed. Then the maritime excursions, which immeasurably widened his knowledge, were made without cost to himself, through American liberality.

From the beginning to the end of his American life the hospitalities of the United States Coast Survey were open to Agassiz. As a guest on board her vessels, he studied the reefs

of Florida and the Bahama Banks, as well as the formations of the New England shores. From the deck of the coast survey steamer Bibb his first dredging experiments were undertaken; and his last long voyage round the continent, from Boston to San Francisco, was made on board the Hassler, a coast survey vessel fitted out for the Pacific shore.

A private friend, Mr. Nathaniel Thayer, guaranteed all the expenses of his great scientific journey to Brazil in 1865; the emperor of that country treated him with grand liberality; the Pacific Mail Steamship Company gave him and his party free passage to Rio; and the naval authorities of the United States required all their officers on the South American coast to offer him every facility for his work. Nor were the friends who stood nearest to him less ready in delicate and generous assistance. He repaid all these kindnesses with a passionate gratitude. The flattering offers of high scientific positions in Europe which more than once reached him — even that most tempting offer of the vacant chair of paleontology in the Jardin des Plantes — could not detach him from his post and his work in America. France bestowed on him the order of the Legion of Honor and the Prix Cuvier, and for these welcome honors he was grateful. But to the great republic he gave the most convincing proof of attachment; for her he, who, after many years' exile, was still Swiss in heart, was willing to give up his nationality. In the midst of the earth-shaking convulsion of the American civil war he had himself naturalized as an American citizen, to testify his unabated confidence in the great destinies of the Union.

The "passionate dream of his American life" was the formation of a grand museum of comparative zoology, which should free all future American naturalists from the immense difficulties with which he himself in youth had had to struggle. With infinite unwearying toil, aided again by private munificence, he was able to accomplish this task; and to-day the Agassiz Museum at Harvard — so styled by the people, who obstinately gave it the name which the originator refused to associate with his work — remains one of

the grandest memorials of this life, so full of eager, disinterested achievement. And the very last enterprise in which he took a share shows us in him the same zeal for the scientific advancement of his new fellow-citizens; in them the same enlightened generosity. The plan of forming a summer school of natural history on the Massachusetts coast, due to his suggestion and carried out through his energy, was made practicable by a rich New York merchant, who gave a suitable site and buildings in the Isle of Penikese, and endowed the school with a gift of fifty thousand dollars. The opening of this school in July, 1873, preceded by scarce six months the death of the great naturalist, who had never laid to heart the farewell words of Cuvier — "Be careful, and remember that *work kills*" — and who was still eagerly working with brain and hand but one week before the dark 14th of December when he had to obey the call, "Come up higher."

It was the solemn "silent prayer" in which the master besought his pupils to unite with him at the opening of the Penikese School that inspired Whittier with his touching, but hardly mournful, poem, the "Prayer of Agassiz," in which the actual scene is set before us with scarcely any poetic exaltation. Here we may hear the voice that, reverently acknowledging the Lord and Giver of life, of light, and of knowledge, implored the seekers of truth around him to join in asking from the mysterious Creator light and guidance in their difficult investigations of the mysteries of creation; here we may see the grand countenance, massive and benignant, shining through its "veil of tender awe" with

the old sweet look of it,
Hopeful, trustful, full of cheer,
And the love that casts out fear,

impressing all who gazed on it with an unforgettable sense of an added grandeur given by reverent humility in face of the Divine. We can hardly conclude our rapid survey of a life devoted, not only to science, but to God, more fitly than by this picture, which shows us the true life-long attitude of Louis Agassiz in regard to his Maker.

From The English Illustrated Magazine.
A GARDEN OF MEMORIES.

[This GARDEN OF MEMORIES holds a sad and most tender memory for me. Thus far in my work I have had my sister's sympathy, and I shall have it no more. Even in her weakness she cared for the beginning of this story, chose it to be a remembrance of her, came, as it were, with faltering steps, a little way into my garden, and I feel as if her grave were among its blossoms. Often as I have wished that work of mine might better deserve to live, I never wished it more than I do at this moment, when, having finished this, I write upon it the name of CONSTANCE.]

I. WITHOUT.

"June weather,
Blue above lane and wall."

THE June sunshine lighted a dull little street, where a row of small houses, mean, dirty, dilapidated, faced a high wall. It was about three o'clock, and Garden Lane was almost deserted, the children being at school, and their elders at the factory. Two or three loud-voiced, slatternly women appeared and disappeared at the cottage doors, looking after the babies who seemed to have casually dropped into the squalid life of the place, and the decrepit old folks who were near to dropping out of it.

Even in its peaceful condition the lane did not seem likely to attract visitors. Yet a couple of well-dressed men lingered there, talking earnestly, and had already lingered for ten or fifteen minutes, though there were pleasanter spots within easy reach. The elder of the two, a tall, neat, grey-whiskered man of sixty or more, stood on the footpath, with his back to the cottages, and poked at the dust with a slim, gold-headed cane. His companion, much younger than himself, had halted in the roadway, and was speaking rather defiantly, with his hands in his pockets.

It was natural enough that the elder man should raise his eyes from time to time, and that they should rest on the wall that faced him. But the other had his back to it, and it was less obvious why he should cast quick glances over his shoulder, as if the wall made a third in the conversation. They were curt, half-hostile glances, and yet it was the pleasantest thing to look at in Garden Lane. It was a substantial piece of old-fashioned brick-work, which rose with an air of strength, almost of stateliness, above its sordid surroundings. Its base was polluted with the filth of the street, and defaced with smears and chalk-marks, but higher up it took the southern

radiance on its warmly colored bricks, touched here and there with lines and patches of bronze-tinted moss, and over its crest, against the blue June, flickered little wanton sprays of ivy and vine. By standing very near the unsavory cottages the sunlit boughs of trees within the enclosure might be descried.

The two men, however, betrayed no such extreme curiosity. There was a small door just opposite, set in the wall, with a projecting ledge of brickwork above it, on which a tuft or two of snapdragon grew, and thin, dry grasses seeded airily. Evidently it was seldom opened, for the children had made little erections of stones, and dirt, and oyster-shells, upon the threshold. The elder man's eyes lingered familiarly on the little entrance, as if he could see some pleasant sight beyond, but the other, when he turned to look, ignored the doorway, and flung his glances higher, where the glowing line of red bounded the sultry sky.

"You know me," he said with a touch of resentment in his tone. "You ought to know me well. You know I don't want to do anything but what is fair and right. But, I put it to you, am I not offering more than it is worth?"

"Decidedly more than it would be worth to any other man," the other agreed. "And I think," he added with a smile, "that you are offering a little more than it is really worth to you."

"Well then?" said the young man crushingly.

But his companion made no answer. He continued to smile, looking down and drawing vague lines in the dust at his feet.

"Why don't you tell her she'll never get such an offer again?"

The point-blank question roused the other to stare and exclaim, "Bless the man! Do you suppose I haven't told her?"

"Well then? Why doesn't she take it? What more does she want?"

"No more. Unluckily for you she doesn't want so much. She simply wants her own house and garden. She won't sell."

"But why? What reason does she give?"

"Do we ask a lady for a reason?" said the other. "If we do we don't get one."

The fierce young man seemed to take the little commonplace speech as a weighty truth. "Heaven help me!" he said, "what have I ever done that I should have to do business with a woman?"

"Don't trouble yourself too much about that, Brydon. I don't think you'll have any business to do with her."

Brydon stood pondering — incredulous, yet gloomy. "But it's absurd," he said. "Look here — I'm not unreasonable. If the place had been a long while in the family, if it had ever been her home when she was a child — well, I suppose it might be called sentimental to refuse a good offer, but it would be the kind of thing one could understand, you know."

"Certainly," the other assented.

"One could understand it," Brydon continued, "and, if it were only a question of a good offer, I, for one, could respect it. Yes, with all my heart."

He paused, giving his companion time for an affirmative gesture, then went on.

"But what has Miss Wynne to do with the place? She bought it — how long ago? A year? A year and a half? Well, a year and a half, then. I suppose from what they tell me she only happened to know of it because she was once here for two or three months when the Macleans had it; they say she was a sort of companion to old Miss Maclean in those days. I shouldn't have cared much to go as companion to Mary Anne myself, and she doesn't seem to have liked it long. But a year or two later, when the house was empty, back she comes with money and a new name, and buys it. Cheap too! Isn't that so?"

"Just so."

"Well, is there anything in that to make a woman refuse a good offer for it, when she knows what her refusal means? Look at those cottages — *look* at them, Eddington!" he threw out his hand towards them with sudden passion. "Are they fit for her fellow-creatures to live in? There they must live, however, there they must crowd together beyond all chance of cleanliness or decency, there they must die, because Miss Wynne has taken a fancy to keep the only bit of ground on which I could build them decent dwellings, for a flower-garden! The devil take such fancies, say I!"

"Of course you feel strongly about it," said the other. "It's only natural. But, after all, Miss Wynne bought and paid for her house — you can't confiscate people's property, you know."

"But what does she want it for — tell me that! The house is well enough, but there are better ones on the Daleham Road. And as for a garden — is she bound to have a garden in the densest and dirtiest part of the town? They say

Norman's Folly is to be sold — why doesn't she buy that? She would get a really good garden there."

"So is this a good garden. Do you know it?"

Brydon shook his head. "The factory is on one side of it, of course, but we have no windows that way. And my uncle never got on with the Macleans, you know. He used to say he thought he could have put up with old Teddy Maclean, but he could *not* stand Mary Anne, so we didn't visit."

"Well, you know Miss Wynne?" said Eddington, beginning to move slowly along the footpath.

"I have met her," the young man answered, "if you mean that. Somebody introduced us at the vicarage one day. She made me a little bow and a remark on the weather."

The other smiled. "She can be better company than that."

"Very likely. But I would have you remark that it is Miss Wynne's room I want, and not her company at all. I think I should prefer the Macleans."

"I dare say! You think you could have bullied poor old Teddy, and had your own way?"

"But I could not have bullied Mary Anne. Still I think I could have made a bargain with her."

"Why not try with Miss Wynne?" said Eddington, as they emerged into the High Street. "Why leave all the arguments to me? You might be more persuasive."

"Oh! Persuasive!"

"Yes. Why not?"

"I've no arguments but pounds, shillings, and pence," the young mill-owner replied. "Will they sound bigger from my mouth than from yours?"

"You might find others."

"No. She doesn't care for the weavers and their wretched cottages. And, being a fine young lady, she probably thinks drainage an unpleasant subject, and would not thank me for explaining to her that she may be poisoned one of these days by the filth of Garden Lane."

"Well," said Eddington, "I can't say whether she cares for weavers and drainage, or not. But I don't think she cares for pounds, shillings, and pence."

"Tell me," said Brydon abruptly, "do you know her reason for refusing to sell? Keep it a secret if you like, only tell me, do you know it?"

"I do not."

"Well, then, I'll try." He had spoken

A GARDEN OF MEMORIES.

hitherto in a defiant and rather masterful fashion, but now he suddenly stood revealed as a shy young man. "I'll do what I can," he said, as if he needed the assurance of his own reiterated pledge. "But it won't be any good. I wish she were Mary Anne!"

"Thank you. I prefer Miss Wynne for a client."

Brydon paused for a moment with his great dark gray eyes fixed upon vacancy. "Yes, I'll try," he repeated. "Well, good-bye for the present."

"Stop," said Eddington. "Miss Wynne will have some people there to-morrow — tennis and afternoon tea, you know. Suppose you go with me? We are very good friends, she and I, I'll undertake to promise you a welcome."

"But I don't care for tennis."

"Very well, then, you can have teacups. It will be all the better for me."

Brydon hesitated. "But how is one to do any talking? That kind of thing is nothing but idiotic chatter."

"Oh, you can't drive a bargain then and there, and pay the money down with the tennis players for witnesses! No, no, you may leave your cheque-book at home. But, all the same, you had better come with me — see how the land lies, and have a look at the walled paradise — you may understand Miss Wynne better after that."

"But I hardly ever go to these stupid afternoon affairs; I'd much rather be at my work — I hate 'em," growled the young man. "Well, I'll go — what time?" he added in a hurry, as if he were afraid that Eddington might give up the idea.

The other smiled a little. "All right — call for you at four," he said.

II.

WITHIN.

"Roses that down the alleys shine afar,
And open, jasmine-muffled lattices,
And groups under the dreaming garden trees."

MR. THOMAS BRYDON, standing a little apart from the tennis-players, eyed the coveted garden with stealthy eagerness. He knew its precise extent and shape, better than any other person present, but the vision which had haunted him for months was that of a somewhat irregular, four-sided patch, washed over with a uniform tint of light-green, bounded by pen-and-ink lines, and conveniently supplied with a scale of measurement and the points of the compass. The delineation was accurate enough, yet the reality took him a little by surprise.

He had had some idea of the ordinary suburban garden, with its neat, machine-mown lawn, and yellow gravel walks, its slim young trees, laburnum and lime, and its gay stripes and masses of bedding plants. He had walked many a time in such gardens, and remembered their well-raked borders, their standard roses, bearing pendent labels, and their latest novelties in variegated foliage. He knew the rock-work in a shady corner, dotted here and there with little homesick ferns. All these things were familiar to him.

But not this walled enclosure, where everything told of long continuance. So many generations had labored within its bounds, each its allotted span, so many seasons of sunshine and rain had quickened the great trees whose white roots were groping far below, that it seemed as if one need only turn a spadeful of the deep black earth for buried memories to germinate and bloom. Spring flowers here were but the last links in a long garland, stretching across the years to hands that tended those same blossoms in pleasant, old-fashioned times. It was like the quaintest masquerade, only to think of the women who had walked in that garden. Who was the first — the woman for whom the pleasure-ground was planted? And was Mary Wynne to be the last?

Already it was but a narrow plot compared to what it once had been. Tall buildings hemmed it in, turning blank walls on its green seclusion. Here were massive warehouses, there, above a quivering screen of poplar leaves, rose a heaped confusion of tiled roofs, a bit of torrid color in the midsummer sunlight, slopes of varied steepness, blackened in places with soot and moss. Little long-drawn clouds drifted from their clustered chimneys across the western sky. There was a gray glitter of glass in distant windows, but it was strange how remote all eyes seemed to be from Miss Wynne's shady lawn.

Half a minute had sufficed to give Brydon a distinct impression of his surroundings. Then with no change of attitude he lowered his glance and surveyed the company. His young hostess had given him the welcome that Eddington had promised, and had only turned away to greet a later arrival. He looked after her, curiously, anxiously, — his impression of her was anything but distinct. How was this? She had talked to him for at least a couple of minutes, and Brydon believed himself to be quick at reading faces. He began to suspect that perhaps he had never looked at her while she spoke.

The tennis party was an ordinary specimen of such gatherings in a provincial town. There were a good many ladies. Elderly clergymen had brought their wives and daughters, and the wives and daughters of busier men had come with apologies for their absentees. Two or three lads, just old enough to be reckoned as grown up from a lawn-tennis point of view, loitered about, always keeping together, and looking on the women, the old people, and polite manners generally, as hindrances to rational enjoyment. The legal profession was represented by Mr. Eddington, smiling and talking in every direction, and self-possessed junior partner. There was a good-looking country squire who had driven in, with two sisters and a cousin, from a manor-house some four or five miles away. And finally there was a curate from his lodgings in the High Street.

Some of the girls were pretty, but Brydon's eyes seeking Miss Wynne lingered only on a tall, willowy young woman, as distinct from all the rest as if she were a foreigner. In point of fact, her dwelling-place was nothing more remote than Kensington, whence, being a little tired, she had come for ten days' change, and was restfully going through the three tennis parties, one flower-show, and one re-opening of a church, which her friends had offered as a round of gaiety.

Brydon's glance encountered hers, for she was gazing fixedly at him from under her slanted parasol while she talked to Mr. Eddington. His story interested her, it was an excitement, an enthusiasm, a struggle for mastery, and the issue was uncertain. Perhaps it might be divined by a little study of the young man. She was like a traveller landed on an unknown shore, ignorant of the local scale of values. She took no interest in the good-looking squire, decidedly the most important person there, she passed by the curate and the young lawyer with complete indifference, but she expressed a wish to make Mr. Brydon's acquaintance, and the next moment she was rustling softly over the grass with Mr. Eddington in attendance. Brydon saw them coming, and felt a shock of surprise and alarm. What the deuce did Eddington mean by it — couldn't he mind his own business and leave other people alone? But he had not presence of mind enough to attempt an escape, and he stood, shifting uneasily from one foot to the other, till he was captured, and duly presented to Miss Hillier.

The worst of it was that her progress

across the lawn had attracted attention. The boys, standing strictly on the defensive behind a convenient tree, silently conveyed to one another that she was a guy. Their sisters looked after her with curiously mingled feelings of disapproval and envy. Their own freshly made costumes somehow seemed too new, and too neatly put on, by the side of those faintly colored folds which twisted and trailed and clung about the Kensington young lady. It was true that the draperies and soft laces which composed a harmony in yellows were slightly tumbled and dingy. One felt that they had been worn in a smoke-laden atmosphere, and crushed in crowded little drawing-rooms. But, nevertheless, there was an air of indefinable superiority about Miss Hillier's dress, a careless completeness of detail, to the yellow beads at her throat, and the cluster of yellow roses, which seemed half-ready to fall, so loosely were they fastened.

Two sisters stood watching her, and the younger, a pert schoolgirl, spoke under her breath.

"You don't call *her* pretty, I *hope* — a limp, affected thing! And I *do* think when people go to parties they might be *clean*! I should like to send that dress to the wash — looks as if she had slept in it."

"Yes," said the elder with a doubtful smile, "perhaps it does. But she must have slept in beautiful attitudes."

Brydon, embarrassed by the introduction, looked sideways and down, while Miss Hillier smiled languidly. "I've been hearing incredible things about you, Mr. Brydon."

He was obliged to answer. "I — I wouldn't believe them," he said.

"I shall be delighted to believe exactly the contrary on your assurance."

He looked round despairingly, but Eddington was gone. "I really don't know what I'm expected to say," he replied. "I don't know what the incredible things are."

"Tell me that you don't want to desecrate this sweet, old-fashioned place by building cheap houses all over it!" Miss Hillier shuddered as she spoke. "There are so many cheap houses in the world, and so few old gardens. Mr. Brydon, you couldn't really be such a vandal! Not really!"

"I don't know who has been talking about that."

"Everybody! We are all talking about you — all watching you. Nobody knows what dreadful things you may be plotting.

You haven't the evil eye, I hope? You won't blight the trees and flowers with a glance?"

"Do you believe in the evil eye?" he asked.

"Why not? I think you are dangerous. I wish I had brought an amulet. But we are on our guard, Mr. Brydon. Do not attempt to take Miss Wynne into a corner, and mesmerize her into signing away her property. I assure you we won't allow it."

"What will you do?" he said, and, half smiling, he looked at her.

Miss Hillier's thoughts flashed from the question to Brydon's eyes. They were his only beauty, for he was not a handsome man. He was slightly below the average height, he had a sallow skin, very ordinary features, and a thin moustache that scarcely shaded his upper lip. But for his eyes he would have been insignificant. They, however, were full of expression, and their depths of transparent grey were deepened and darkened by the black lashes that bordered them. "Eyes like agates," Miss Hillier said afterwards, "really too beautiful for a man of business."

"What would we do?" she repeated after a momentary pause. "Well, really, I hardly know. Part you by main force, I suppose."

"But anyhow Miss Wynne and I must settle it at last, you know?"

She made a little affirmative sign. "Yes, and I tremble for the result. It is always the same. When it comes to be a question between mean little houses and a dear old garden, the garden goes, swallowed up in hateful bricks and mortar. If I had any influence with Miss Wynne ——"

"I hope to heaven you haven't!" Brydon ejaculated anxiously.

"I would entreat her to be firm. She has made one mistake already."

"What is that?"

"She should never have admitted you within the gates of her stronghold. I saw you looking round as if you were taking possession. If I were Miss Wynne, Mr. Brydon, I should shut myself up, and refuse to communicate with you."

"Wouldn't you even answer a letter?"

"No!" said Miss Hillier sternly. "I would not. I would run no risks. If an answer were absolutely necessary, I would send a little message by that nice, talkative Mr. Eddington. But I would not write, and as for an interview — never!"

Brydon was flattered, and laughed. It had displeased him that his cherished scheme should be made the subject of jesting talk, but a shy man naturally likes to be told that a woman finds him formidable.

"I don't know how I should manage — I'm afraid you would be too clever for me," he said. "I should have to try and make my way in *disguise*."

"What, as the milk or the washing, or to look at the gas-metre? But seriously, Mr. Brydon, do you really mean that you would have the heart to destroy all this?"

He looked round deliberately and calmly. He had forgotten his shyness in the interest of the question. His glance took in all, the house half buried in roses, vine and passion-flower, the fine turf of the lawn, the masses of leafage — syringa, myrtle, lilac, laurestinus, and bay, the sweet, old-fashioned flowers, the bushes of lavender and rosemary, the great trees, limes with their innumerable bees, poplars quivering lightly in the sun, tulip, juniper, chestnut, mulberry, medlar, and, close by where he stood, two great cedars, sweeping low with dusky horizontal boughs. Against their soft dimness Miss Hillier's slender, yellow-draped figure, fair, dishevelled hair, and refined face, came out like a picture, a little faded and pale, yet with a certain charm. Brydon's travelling glance ended by meeting the eyes that watched him, eyes tired and circled with faint shadows, yet intense with questioning interest.

"Well," he said slowly, "I'm very glad you should enjoy this to-day. It is very pretty, prettier than I thought. I don't at all want to spoil it now, but I should like to see the ground clear this autumn, ready to begin work the first thing in the spring."

"Never another spring for all this?" Miss Hillier demanded tragically, indicating the surroundings with a movement of hand and wrist in a wrinkled, tan-colored glove.

"I'm very sorry," the young man replied, "But if the cheap houses are urgently needed ——"

"Oh, that sounds like a prospectus! If you mean it as a speculation, Mr. Brydon, I dare say it may be a good one — I'm not questioning that."

"A speculation ——" he began, but instantly checked himself. "Well, I should like it to pay," he said, "but one gives a fancy price for a bit of ground like this. There's no chance of making a fortune out of it — worse luck! Still, I hope it

will pay—I haven't much opinion of things that don't."

"I would rather not have the money you get for this desecration!"

"It won't be much."

"You will do it for a little?"

"Yes. If you could see the cottages beyond that wall!"

"So very bad?" in a voice of languid softness.

"So hopelessly bad and over-crowded. I wish Miss Wynne would have that gate set open into the lane. Is the key in it, I wonder! Come and see."

She drew back. "No, no! There's a time for everything, Mr. Brydon. Not now."

"Yes, the time for that kind of thing mostly is 'not now.' I ought to have known. Well, you must take my word for it that if you saw those cottages you would wish me success in my speculation."

"Indeed I should do nothing of the kind. Can't you put your cottages somewhere else?"

"There is nowhere else. See how we are built in."

"And for that very reason I would fight to the last for this bit—the only remnant of sweetness and beauty left to you. Did you ever think what a source of health and joy an old garden is among these crowded alleys? And how full of poetry! Paradise within a stone's throw of the squalid ugliness of a town like this!"

"Can't look into Paradise, you know," said Brydon.

"What then? Is the knowledge of hidden beauty nothing? It seems to me that one might breathe the flower-scented air"—the young man's lips twitched in a curious little spasm—"and dream by the wall which conceals and yet suggests it—dreams more precious than the dull realities of life. Why, all one's ideals would be there!"

(Brydon privately wondered what Miss Hillier's ideals would be if she had been brought up in Garden Lane instead of Kensington. While he was thinking about it, however, he found that she had gone on, and he was compelled to follow.)

"Think for one moment what half-a-dozen old gardens—not enclosures in the middle of squares of stucco-fronted houses—and not old graveyards laid out with shrubs and tablets, but real old gardens—gardens that people had loved and gardened in, gardens with memories, would be in London now! Don't their very

names haunt you? Don't you feel a pang of regret when you drive by them in a cab?—those ghosts of gardens, forgotten long ago but for their names painted up at the corners of dirty unwholesome little streets! I dare say they said houses were urgently needed—but it is the old garden that is needed now!"

Brydon was certain that Miss Hillier was talking nonsense, but he wished she wouldn't, for the nonsense perplexed him. Did women argue like that about a simple matter of business? If so, Eddington might do the talking, for he'd be hanged if he would, and he stood with downcast eyes, twisting his straggling little moustache, and looking perfectly insignificant.

"I suppose that is what you will do," said Miss Hillier. "You will cut down these trees, make the place hideously bare, and call it the Cedars?"

"Let me only build my houses and you may call them what you like."

She laughed a little. "Take care! Well, I suppose you will get your own way. Perhaps you will live to regret it."

"If you would only go and—and smell those cottages—only once!" said the young man, growing desperate. "You wouldn't doubt then that I ought to have my own way in this."

"Not if they were absolute pigsties."

"They are."

"Then make them better if you can. But never sacrifice the priceless inheritance of the future to the comfort of a passing generation."

Brydon was dumb, silenced, not by the argument—he had not had time to consider it—but by the turn of the sentence. He could not be expected to talk like that.

"You are not to be moved—you have no pity on all this loveliness?" Miss Hillier continued after a pause. "Does not the very rustling of the leaves plead for mercy? Listen—listen!"

This was obviously poetry and nonsense, and Brydon broke roughly through the faint whispers far overhead. "I keep my pity for those who can feel."

"And do you think that trees and flowers cannot feel? But they do—I am sure they do," she said, gazing at him with mournful intensity. "Ah, how I wish that I could be the guardian of a spot like this! What a sweet atmosphere of gratitude to live in!" Here she seemed to wave a little towards an approaching figure. "I was just envying you, Miss Wynne."

("Here's another of them!" said Brydon, to himself.)

"Envyng—me?" Mary Wynne re-

peated, with a little questioning pause between the words.

"Yes—envying you your power to resist Mr. Brydon. I can only tell him how I would resist him if the ground were mine."

Brydon, in his talk with the lawyer, had called Miss Wynne a fine lady, and certainly she was finely dressed that afternoon. But as Miss Hillier spoke she suddenly looked at him with eyes timid as a child's, a liquid, shy, appealing glance. However fine she might be, she was very unlike the young lady from Philborough Terrace.

"It's a pretty garden, isn't it?" was her offer of an original contribution to the conversation. "You have been here before?"

"Never," said Brydon laconically.

Miss Hillier looked questioningly from one to the other as if measuring their respective force, and calculating chances.

"Never?" Miss Wynne exclaimed. "Oh, then you don't know how pretty it is! I mean that the plants and things only look to you what they are at this minute —"

"Pretty enough," he said.

"Yes. But if you had seen them all budding and blossoming! That great old thorn over there—it looks just like any other thorn, but it's a double one. I suppose it isn't right to like double flowers," she said, half glancing at the pensive, yellow-draped bystander, who smiled.

"Like what you like—I do." Brydon threw this defiantly.

"Well, just for once," Miss Wynne continued. "I don't want all the hawthorns like it, but it was very pretty this spring. It was covered with blossoms like the tiniest, tiniest roses, white, you know, almost greenish white—you might have made nosegays of them for fairies as tall as your finger."

"Pretty," said the young mill-owner again. "I'm sure I don't want to depreciate your garden, Miss Wynne. Those are not my tactics."

There was a soft rustling of trailing folds on the fine dry grass while he spoke. The principals in the coming contest were left for the moment face to face and alone.

III.

A TRUCE.

THERE was a brief silence. Then Miss Wynne said, "Wouldn't you like just to walk round and look at the place?"

He assented, and the pair moved slowly,

side by side, along a mossy gravel path. Eddington, where he stood on the lawn, followed them with his eyes, and smiled. "They had better fight it out," said Miss Hillier, sweeping softly towards him.

"So I think," the old gentleman replied.

"I have done my best," she continued.

"On which side?"

"Can you ask? My best to persuade Mr. Brydon to relinquish this wicked scheme of his."

"Ah—I see—your worst for my client. No matter, Brydon is as obstinate as—as fifty mules."

"So I haven't done any harm?" said Miss Hillier, smiling good-humoredly.

"Not a bit," said Eddington, "and I don't suppose I have done any good."

"You really take that vandal's part? You can't!"

"Miss Wynne will never get such another offer. If the garden were yours I should certainly advise you to accept it. You would—wouldn't you?"

"Never! How can you think it?"

"You wouldn't?" said Eddington. "I'm delighted to hear it. You would give up all the world—give up Kensington, to settle down among us all and take care of these cedars!"

The sun was shining on the great shadowy trees and on the transitory, faintly tinted little figure on the grass below. It was strange to think that those dusky giants were so sorely in need of protection.

Meanwhile the arbiters of their fate had paused in their walk, and were looking up, where beyond a screen of blossoming limes rose the high, unbroken wall of a large building. From behind it came a measured sound, dull yet distinct, like the heavy throbbing of great pulses. Brydon's looms were at work.

"It seems strange," said Miss Wynne, facing the eyeless surface, "that you should be so near, and yet never have come into the garden till to-day."

"I don't see it. My place is on the other side of the wall."

"But that's what I mean. A wall seems such a little thing to part two places so completely."

"Does it?" said Brydon shortly. "I fancy it's mostly like that. Only children cry for the moon—for things obviously out of reach. We older and wiser folk waste our lives on the wrong side of the thinnest possible partition."

"It would be something, though," said Mary Wynne in a meditative voice, "to

be sure that — that it was only on the other side of a thin partition."

"It," he repeated, and his isolation of the word gave it an emphasis which sent a faint flush to his companion's cheek. "It is the ideal, I suppose. Well, I don't know where yours may be — "

"I'm sure I can't tell you — I don't know that I've got one. But I know where yours is."

"Well, I suppose you do."

She faced him suddenly with a beseeching glance. "Oh, Mr. Brydon, is it any good telling you how sorry I am that I can't break down your wall for you?"

"It's very kind of you to say so."

"Don't!" she entreated.

"Well, if you can't, you know," said Brydon, "why — you can't."

"But it isn't like that — I can't, and yet of course I could."

"Oh yes, under some other circumstances. Well, I don't see why you should worry yourself about it. You have a perfect right to say won't — why not end the matter so?"

"Have I a right to say I won't? Do you think I have?"

"A legal right, anyhow."

She moved slowly onward. He kept near her in a hesitating fashion, through the flickering leaf-shadows which dappled the light folds of her gown. She walked languidly, drooping, as if she were burdened. They were close to the southern wall of her domain, and her eyes strayed to a small entrance overhung with clematis and honeysuckle, and approached through a little arch, about which a climbing rose was delicately tangled. Brydon swerved towards it and she stood still. The key was in the lock, he turned it, opened the door, and she saw an oblong picture of Garden Lane in a frame of flower and leaf.

A dirty child started up from the threshold, dragging a dirty baby. The baby, which had but just learned to walk, was swung off its rickety little legs, and fell on its face into the hot dust of the roadway, where already lay an old boot, a dead kitten, some shreds of paper, and a battered tin. Being dragged up and shaken it looked little the worse, and hardly any dirtier. Its guardian sister, clutching it absent-mindedly, halted at a little distance, where she showed a face of a common type, and a sore eye, partially obscured by a filthy strip of rag. The other eye, dilating with wonder, stared past Miss Wynne at the distant figures of the gentlefolks, seen, lightly active in the sunlit

greenness of the garden, intent upon a flying ball. A girl cried out — a lad, all white arms and legs, sprang to strike.

Brydon closed the door and locked it.

Miss Wynne's gaze passed from the doorway to Brydon's face. "I thought you were going out," she said, as he approached, swinging the key on his finger.

"Oh, no!" he answered. "I only wanted to look at my side of the wall for a moment. No, I wasn't going to beat a retreat like that."

"Why did you shut the gate so quickly? Did you see that poor child? How she stared!"

"Naturally," said Brydon. "But I didn't know you would enjoy being stared at."

"It seemed so cruel to shut her out. Oh, how cruel I am!"

Her companion said nothing.

"How I wish there was some other ground that you could take, Mr. Brydon! something that would do for your cottages. Isn't there? Are you sure?"

Brydon turned his dark-lashed eyes full upon her, and bit his lip. The maddening, innocent folly of the question took his breath away for a moment, and when he recovered it his self-control came too. It was fortunate, for he had never felt so great a need of an oath, something brief, sudden, brutal, like a discharge of dynamite. To ask a man who had been brooding over his scheme, night and day, for months, whether by any chance he had ever thought of it at all — it was too much! First he longed to swear, then he would have liked to laugh, but he only said quietly, "If there had been, my cottages would be built."

She answered with a sigh. "Of course they would. It was foolish to ask, I suppose; but I wished so much that there might be!"

"I'm sorry too," said the young man. "But if you were to look at a plan, you'd see in a minute. There's the Baptist chapel runs right into me on the other side, and the corner bit is the public-house — Hand and Flower, don't you know? Here's the road," and he began to trace imaginary lines with the key on the palm of his hand. "Then there's Burgoyne's brewery at the back of me — you can see a bit of the roof over there," nodding towards it. "Well, of course, I could build some cottages somewhere else — on the nearest bit I could get, though I doubt it wouldn't be very near, this neighborhood is so crowded. Still it might be better than nothing. But it

isn't only the cottages, it's the mill. I want to enlarge it, to improve it. It isn't well built — there isn't room enough in it — it isn't properly ventilated. In a word it's old-fashioned. I'm sure it isn't wholesome; I do what I can, but nothing can be done worth doing without more space."

Brydon had made what was, for him, a remarkably long speech, and his tone throughout had been patiently explanatory, and even gentle. That brief gust of irritation had passed and left no trace. Miss Wynne was perplexing, but he did believe her to be sincere, and sincerity atoned for much. He wished he hadn't to deal with a woman — women were not practical, but that was not Miss Wynne's fault. He recognized her claim to elaborate explanations and a certain amount of humorizing. Business, in a case like this, must be polite, must wear light gloves and a flower in its button-hole.

And at any rate Miss Wynne had listened to him. She had noted every syllable that fell from his lips, and when he paused she looked almost too serious. The young man felt that the time was ill chosen, that he had said too much. A face like that, with dejection and appeal in every delicate line, was not fit wear for a tennis party. "I forgot," he exclaimed with a short, uneasy laugh, "Eddington said I wasn't to try to drive a bargain to-day."

"Do you always do what Mr. Eddington tells you?"

"No. He's not my adviser, you see."

"He's very much on your side, Mr. Brydon. I should think you might say what you pleased, he talks enough himself. He tells me I shall never have such another offer for the garden."

"I doubt if you will."

"No — it's splendid — it's munificent, I'm dazzled when I think of it! Only what I wanted was not to have any offer at all. As it is, my greatest comfort is that I'm refusing a small fortune — I'm not seeking my own profit, no one can say that."

"I'm glad you think so much of my offer," said the young man, "for I can't make it any bigger. Such as it is, it's my last word — I can't do anything more in the dazzling line."

"I don't want any more. I'd rather not."

"Oh well, that's all right. I fancy it takes a woman to feel like that. Most of us would always rather have some more — I would I know."

"I don't want to make a profit out of it. You are offering me too much already."

"Well, I'll beat you down if you'll give me a chance," said Brydon; "but I can't go any higher. Sooner than that I'd move the whole concern. I've had the offer of some land three miles off, at Holly Hill."

Her eyes lighted up with radiant hope, her face was transfigured. "Oh, why don't you do that? I was out that way yesterday — it was lovely. Such open, breezy slopes, such gorse, such a wide, clear sky! Mr. Brydon, it would be *life* to your poor people. Oh, how happy I should be! Fancy that wretched little girl out in the fresh air at Holly Hill — and the baby — it would be ten times better — a thousand times better than anything you could do here. Oh, why don't you do it? It would be perfect. Out in the open, away from all these crowding roofs and houses — *do* it, Mr. Brydon! Oh, you must!"

She seemed to rise with the eager rapture of her voice. He stared, he listened with parted lips, and then with his answer they both came down to earth again.

"Several things against it, Miss Wynne. It would be an experiment, and a hazardous one. You don't know how these poor people cling to the neighborhood they have known. I suspect a good many would stay on here and starve, sooner than go to Holly Hill. It would break up families too — there are girls working for me, and their brothers have got places as errand boys and the like in the town. And they would be a couple of miles from church or school. That isn't all, either. It would require a greater outlay than I could manage at present; it might be the best in the end, but I should have to wait — years. I have my mother to think of, she lives at Brighton, she depends on me; I can run risks for myself, but not for her. I can't tell how long it might be before I should dare to move in the matter, and all that time these miserable children would be growing up — crowds of 'em — in their filth and wretchedness. Why, I might die first! Oh, no! I've thought it all out; I only told you that you might understand why I set that limit to the price I was prepared to offer; if you asked more Holly Hill would be better."

He had effectually quenched the brightness of her glance. "I should never ask more! I have told you already, it is too much."

"I know. But your friends —"

"I have none."

"Only yourself to consider in the matter, then?"

"I suppose so." The swift color flew to her cheek. "Yes, only myself."

"So much the better," said Brydon absently. She looked at him quickly and questioningly, and brought back his wandering thoughts. He evidently felt that he must explain himself. "It narrows the discussion, don't you know? — brings it within manageable limits." Then he considered for a moment. "I don't mean that *you* are manageable, Miss Wynne," he concluded, and having explained away his explanation, was silent.

"I think I ought to go back," Miss Wynne replied. "Don't you play tennis?"

He shook his head. "I've kept you too long. And I've been talking business again!"

"I don't know why you shouldn't."

"It seems as if I couldn't talk anything else."

"Well, that's what is expected of you," said Miss Wynne. "Everybody was sure you would talk about your cottages. They wouldn't interrupt, they are all so interested."

Brydon looked sideways at the tennis players, drawing down his brows. "I'm not expected to talk about anything else — well, it's satisfactory to know that. Am I supposed to have finished now, do you think? If so, as you say, we had better go back."

"No, stop a minute." She had caught the sense of his words, but not the displeased tone. Her face was quickening with a new thought. "Mr. Brydon, I have an idea! Why shouldn't you make some windows in your wall? Wouldn't that make it better for your people — a little better, at any rate? Wouldn't it be brighter and more cheerful? Why don't you?"

"But I've no right," said Brydon.

"But if I say you may?"

"Nonsense — you are not going to say anything of the kind. How should you like to be overlooked by rows and rows of windows?"

She flinched a little, but reiterated her "You may if you like."

"But I don't like! I won't do it. Even if you never regretted it for yourself, you'll want to sell or let the place some day, and then you'd find out the inconvenience of it fast enough. You shouldn't say things like that without consulting Eddington."

"Indeed? I fancied I might say what I pleased."

"No," said the young man, "you'd keep your word. Well, it doesn't matter this time. It's very kind of you, Miss Wynne, but really it would do you much more harm than it would do me good. It's not so very noble of me to say no. I don't care for half and half concessions." He looked her straight in the face, their eyes were about on a level — his were lucid and resolute. "All or nothing, Miss Wynne."

Hers dropped, escaping him. Her lips parted as if she were about to speak, but no sound came. "All — or — nothing," Brydon repeated.

She found her voice then, but it was hardly above a whisper. "I'm sorry — sorry, but it must be nothing. I can't help it."

"Don't say it like that!" he exclaimed, "I didn't mean to pain you. Look here, I'll tell you how it shall be. We'll leave it till the beginning of the year. You shan't be bothered any more, no one shall mention it to you, but my offer shall hold good till then; and if you change your mind and like to say yes, you can, any minute. And if not — why, your silence shall be your final answer when the new year comes — it will do as well as anything else, and it will make it easy for you. Is it a bargain?"

She was grateful for the respite. "Yes," she said. They walked across the grass to the rest of the party, only pausing once while she gathered a bit of heliotrope, which seemed to require careful selection. Brydon fancied she was gaining time to recover her usual calmness. She offered him the flower with a smile.

While he was putting it in his coat he murmured something about thinking he must be off now.

"So soon?" said his hostess, as they came up to a group near the tennis-players. Eddington turned round and looked at them.

"Oh, my prophetic soul!" Miss Hillier exclaimed, in a voice which seemed thinner and clearer than those about her, and struck a distinct note among them all. "The battle is over, and lost! Look at Mr. Brydon — he has begun to pick the flowers, and he has taken possession of the key."

All eyes converged on the young mill-owner, who looked down at the key which he was absently holding, and remembered that he had taken it out of the lock of the little gate. He crimsoned, like an angry, bashful boy, with vexation at the trivial blunder, and at the widening smile which

encircled him. "It isn't so at all," he began, just as the white-flannelled young squire broke in with his easy laugh,—

"Going to lock us all out and begin to cut down the trees, eh, Brydon? Like old Gladstone, eh? No time like the present, is there?"

Brydon fastened on the one point in the circle at which he could strike. "Nothing of the kind," he said, perversely exulting in his own defeat, since it enabled him to contradict the smiling young man. "Miss Wynne has sent me about my business—haven't you, Miss Wynne?"

She blushed. "Oh, not like that!" she cried.

"But you have—and the proof of it is that I'm going, as I told you just now, didn't I? I can't think how I can have been so stupid as to bring the key away, but, if you'll allow me, I'll go out by that little door—it's nearer for me."

"Don't you let him take the key, Miss Wynne," said the young squire. "Don't you trust him. Give it to Miss Hillier—she'll see him out at the little door, and double-lock it after him, won't you, Miss Hillier?"

"Do I look like a turnkey?" said that young lady languidly. "Really, Mr. Hal-dane, I wasn't brought up to the profession. And I'm sure Mr. Brydon is an honorable enemy—"

"Oh, you're too trusting! Ladies always are."

"I wonder at it," Miss Hillier replied. "Are you really going, Mr. Brydon? Good-bye, then, and you'll let me wish you all success in cottage-building—some-where else!"

"Thank you," said Brydon.

"You'll be sure to find some other place for your little cheap houses—won't he, Miss Wynne, if he only looks? Oh, I don't mean to be rude to them—they'll be charming little houses, I dare say, and I shall be quite interested in hearing about them now I know they are not to be here. There must be plenty of room, without spoiling this sweet old place. *Good-bye!*"

Brydon listened, looking straight at her with an air of dumb resignation. He shook hands with Miss Wynne, then turned to Eddington. "I'll walk to the gate with you," said the old lawyer, and the pair went off together, taking the most direct way to the little door, by a great clump of Portugal laurel, quivering and shining in the sun. Eddington walked in his erect, old-gentlemanly fashion, but Brydon slouched carelessly and moodily, and seemed to swerve a little from his

companion as they went, with their shadows falling far across the shaven turf.

He hurried out of the garden, never turning his head, and consequently was unaware of the curiously intent gaze with which Miss Wynne followed him. In fact it was lost on every one but Miss Hillier, who was thinking that her young hostess would make a charming picture. She went further, and thought of a young artist friend at Kensington who would be the very man to paint it. "Just the kind of thing to suit him, I *wish* he were here! Against a bit of that old, mellow brick wall—how well she would come out! And the sentiment of the thing, too—exactly what he would enjoy—it's a thousand pities he isn't here. *A Guardian Genius*—oh, I see it all! A line or two of description to explain it, and it's just what the public would understand and like. He might do something with the idea, perhaps, but that's not like seeing the real thing. Only, isn't the guardian genius a little too sad? Can she be repenting as she looks after Mr. Brydon? No doubt it would be a fine thing to sell her house and grounds for about double what she gave for them—one could do so much with the money—and yet I didn't think she was that kind of girl. But this certainly does look like repentance."

Acting on this suspicion, Miss Hillier went up to her hostess with warm congratulations. "I am so glad—so very glad," she said. "It would have been desecration. I'm so glad you felt it so too—so thankful it was in your hands."

"I don't know," said Miss Wynne vaguely. The gate opened into Garden Lane and a figure vanished through it. Eddington came strolling back alone, looking at the flower-beds.

Miss Hillier could not repress an exclamation. "What a relief! He is gone."

"Yes. I only hope it is right. You think it is, don't you?"

"Right?" cried Miss Hillier rapturously. "Your defence of the garden? Right! It is much more than right—it is noble—it is perfectly beautiful!"

"I should like to know that it was right, too," said Miss Wynne simply.

"But it is right—it *must* be! There can be no doubt of it!" The other turned her gentle eyes on the Kensington young lady's face. "I hope so," she said.

The old lawyer came up and the talk ended, but Miss Hillier thought it over, and as she drove away with her friends through the midsummer evening she

leaned forward and spoke impressively. "Jessie, mind you write and tell me about the garden, when it is all settled, you know."

Jessie's brother, one of the tennis-playing youths, spoke up instantly. "Oh, but that's all over — didn't you hear? He's not going to have it — she won't sell. I would — I'd stand out for the very last farthing, but then I would. I wouldn't be fool enough to lose a chance like that!"

"Wouldn't you, Owen?" said the thin, superior voice. "Well, I don't think Miss Wynne will be fool enough, either. I fancy Mr. Brydon will get what he wants — soon. What a lovely moon!"

"Do you really?" Jessie exclaimed. "I thought she was quite determined. What makes you think that?"

"I don't know, but I do think it. Only write to me when she sells it — I should like to know." The carriage rolled smoothly on between the hedgerows, and Miss Hillier sat thinking. "It's not the money," she said to herself, "it's a case of conscience, but that's just as fatal. He'll surely get in." She seemed to see Miss Wynne's conscience working silently, inexorably, as waters work in the dead of night, filtering through tiny unseen channels, widening their narrow ways, sapping the heavy dyke, flowing, streaming, rushing with resistless force, till daylight comes, defences fall, and all lies open. "A guardian genius has no business to have a conscience!" thought Miss Hillier, "though to be sure the idea for a picture is just as good. I really must tell Mr. Wargrave. Only, if she feels like that, why doesn't she let Mr. Brydon have his cottages at once?"

From The Nineteenth Century.
THE PRIMROSE LEAGUE.

MANY seek to know the origin and purposes of the Primrose League, and how it has come to possess a creed, a prophet, and a symbol, and to be a distinct and vivifying factor in the politics of England.

It is the manifestation of the latent strength inherent in the patriotic and constitutional party. The old Tory had become too fossilized to march with the age, while the Conservative as he existed a few years ago was sadly deficient in vigor. To the Radical cry of "Peace, retrenchment and reform" he could only respond that he was more peaceful, more disposed

to retrenchment and to reform. At the battles of the hustings men haggled at words and were supported on either side by endless arrays of figures. The contest waxed fierce about small measures and raged about still smaller persons, till the bewilderment of the newly enfranchised voter was complete. To remedy this state of things on the Radical side, Birmingham called the caucus into existence. This new institution does not pretend to enlighten, but only to control the elector. It compels him to delegate his choice to a select few, who in their turn are subordinate to a central authority, which imposes its will both upon the constituency and the representative. The Primrose League, on the contrary, interferes neither with the choice of electors nor with the candidates. It seeks to educate the masses and to organize them, so that they shall voluntarily vote for the cause of order.

In October, 1883, when the fortunes of the party were at their lowest ebb, a few friends met in a private room of the Carlton Club, to discuss the depressing subject of Conservative apathy, and to listen to a scheme which had sprung from the brain of Sir Henry Drummond Wolf. This was a project for enlisting the young men of various classes, who hitherto had borne no active part, in some body which should replace with advantage the paid canvassers, abolished, and wholesomely abolished, by Sir Henry James's new act. It was thought that if the opportunity were offered, there was abundance of active spirits willing and ready to enroll themselves in small clubs of friends, and to take up the work of aiding registration, promoting sound principles, and generally encouraging the nearest Conservative association. The "Habitation" or club scheme was founded on the probability that a strong spirit of emulation would be developed among the members and also among the habitations. There was ample ground for believing that recruits might be obtained with ease, by appealing to the veneration with which the memory of Lord Beaconsfield was cherished. Gifted as that statesman was with marvellous political instinct, he had touched chords which did not cease to vibrate when he expired, and he left to his countrymen a legacy of convictions which only needed expression in a formula. Of the profound regard in which the memory of Benjamin Disraeli was held we had ocular demonstration every nineteenth day of April, the anniversary of his death, when

all classes in numberless thousands bore the primrose. It was obvious that if the young and energetic of these multitudes, instead of wearing the flower for the day, were to take it as a permanent badge of brotherhood, a confraternity might be established with an unlimited future.

The principles of Lord Beaconsfield and of the constitutional cause were pre-eminently those opposed to the spread of atheism and irreligious teaching, to the revolutionary and republican tendencies of Radicalism, and to the narrow and insular mode of thought which despised our colonies and found utterance in the words "Perish India." The creed of the League, therefore, was set forth as "the maintenance of religion, of the Constitution of the realm, and of the Imperial ascendancy of Great Britain," or, in shorter form, "Religion, Constitution, and Empire."

At first the intention prevailed of shrouding the appearance of the League under a certain veil of mystery. Those who belonged to it were to have grades, but "the ruling councillor" was not to be publicly named. There were several excellent reasons for this. Never was an important undertaking more modestly begun. We did not approach the chiefs of the party. We did not communicate with the men of leading or even with the rank and file, because we knew — and it proved so for a long year and more — that so novel a conception would not find favor amongst those wedded to old methods of procedure until it should command attention by success.

The League was started in a somewhat dismal and dilapidated second floor in Essex Street, Strand, where the original band of enthusiasts met constantly. A paragraph in a newspaper and a few advertisements at once awakened public curiosity and interest, and adherents speedily sent in their names.

The very class for which the League was instituted was the first to respond, and only a few weeks had elapsed when already some hundreds had joined, and the work of forming Habitations was in full swing. The hundreds soon swelled to thousands, and a grand banquet in Freemasons' Tavern marked the first public appearance of the League upon the world's stage. Since that day it has increased by hundreds and tens of hundreds until this moment, when a thousand a day is the average entry of new members. It is needless to say that the offices necessary for conducting so gigantic a business have expanded into extensive premises (in Vic-

toria Street), with a vast staff of employés, occupied in sorting and attempting to cope with masses of correspondence from all parts of the country. The chiefs of the party have been glad to accept the highest honors of the League, and have testified to the great results achieved. Many and many a public man, who laughed at first at our "strange nomenclature," and was incredulous of our success, has since eagerly sought our aid in founding Habitations in his county or borough, and has largely benefited by the work done by the knights, dames, and associates.

Perhaps the simplest key to a comprehension of the procedure of the Primrose League is to state the conditions and mode of conduct of a Habitation.

Any person can join the League by sending his name to the central office in Victoria Street, with a crown — half-a-crown being his entrance fee, and half-a-crown his year's tribute. Upon his signing a declaration of fidelity to the principles of the League, he receives his diploma of knight harbinger, and provided with this he, with not less than twelve other knights, can apply for a warrant to form a Habitation. After this follows the election of a ruling councillor, the appointment of secretary, treasurer, wardens, and other officials. Great latitude is allowed to all Habitations so long as they are careful to keep within the strict statutes of the parent League. They may admit associates and fix their tribute at sixpence or whatever sum they deem proper, and they may keep within small limits or extend themselves, as some have done, to thousands, according to the necessities of the town or county in which they are situate. The first and most obvious business of a Habitation is to attend to registration. I could name counties, such as Suffolk and Hampshire, where the network of Habitations is so complete that every vote in every house in the various electoral divisions is accounted for. The members of Habitations volunteer to take some small district or half a street, and to notify all deaths, departures, or arrivals, so that the registration may be carefully kept up by the Conservative association to which they communicate these results. The next duty is to maintain a permanent canvass by means of individual persuasion or public meeting, and to be ready to canvass out-voters at times of by-elections. E.g., an election comes off at York or Devonport; the election agent sends to the central Conservative office at Westminster the names of out-voters resident in Lon-

don, Leamington, Brighton, etc. The central office sends in the names and addresses to the Grand Council in Victoria Street. They are at once classified and sent to Habitations in the towns named, and the various districts of London ; and each local Habitation has it at once in its power to send voluntary canvassers for each name sent in. Of course, when an election comes on, all Habitations, following the example of the Conservative associations, suspend their existence, and can take no corporate action. But the individual members, acting no longer as members of the Primrose League, but as individuals, can volunteer to join the committees organized by the election agent. And in these days, when expenses are curtailed and it is no small difficulty to meet the demands of an election from the exiguous sums allowed by the law, the services of volunteers are invaluable, when, as in elections I could name, a number of ladies undertake to write out the addresses on thousands of envelopes, or when scores of young men volunteer two hours a day each for the purpose of delivering circulars, etc., all of which reach their destination, since it is a point of honor to hand them in — a very different state of matters from that which obtained in the days of paid agents and messengers.

Excepting at the election period, the Habitation can organize public meetings, invite able speakers, or obtain from the central office some of their staff of lecturers to explain and develop the objects of the League and further its spread. One of the chief duties incumbent on every Primrose centre is to combat and destroy the Radical fallacy that in modern politics classes are antagonistic. The League, on the contrary, brings all classes together. All vote on a footing of absolute equality, and all meet on terms of the truest fraternity. To this end, it is best that all social gatherings should be held in some public hall, where every knight, dame, or associate can contribute of his knowledge or talent to the instruction and amusement of the evening. We have seen hundreds of such meetings where the enunciation of sound constitutional principles has been varied by ballad-singing and instrumental performances volunteered by those best qualified to please. Within its limits the Habitation preserves strict order and discipline. It obeys the precepts of the Grand Council, and annually sends delegates to Grand Habitation, which is held in London on or near the

10th of April, on which occasion the Grand Council renews its members and its life by the votes of those present. On the last occasion, besides spectators, there were twenty-five hundred delegates present. Important statutes and ordinances were framed or modified, for, as this new institution grows, many are the new requirements to meet its vast expansion, as well as to satisfy the demands for progress and improvement which are put forward from active centres.

The Habitation such as it has been described is bound to take heed of precepts issued by the Grand Council, such as, for instance, the suspension of its functions during election time ; but in all other matters it is left a wide liberty, and frames its own by-laws subject to superior approval, which is rarely withheld. No questions of the smaller current politics disturb its deliberations. These should tend only to the upholding of religion, constitution, and empire, and necessarily embrace men of different tenets, united firmly in support of these cardinal principles.

The members of the League work for the return of constitutional candidates whenever they present themselves, irrespective of their professions on minor points. Only when the question of the day touches one of its three great principles does the League take distinct action. When the honor of the empire was at stake with the life of the heroic Gordon, every Habitation sent up a petition for his rescue ; and now again, when the existence of the United Kingdom is menaced, the League has been active in the defence of our imperilled constitution.

The most remarkable feature, however, of this stirring political development has been that for the first time in our history women have taken an active part in controversies hitherto reserved to men. The reason of this, in the first place, is the novelty and suddenness of the Radical and Fenian onslaught. Women, with an instinct peculiarly their own, divined at once the dangers involved in the new doctrines and theories — perceived that if churches were to be overthrown, education divorced from religion, property held to ransom, the constitution to be riven asunder, England must be in presence of as serious a revolution as ever threatened social order or preceded a Reign of Terror. The women of England speedily adopted the Primrose banner, and the dames, armed with sweet influence and persuasive eloquence, boldly came for-

THE PRIMROSE LEAGUE.

ward to take their share in the labors of the organization. Their aid has proved invaluable. Many a lady well known in the world has spoken at meetings, chiefly of friends and neighbors, who have surrendered to the expressions of heartfelt conviction. Many another has devoted all her time and energy to the formation of Habitations in her county or borough; while the working woman has not been behind her sister in enthusiasm or self-sacrifice. The first badge of honor for special service given by the League was conferred on a woman in the west of England, whose daily bread depended on her labor, but who had devoted all her spare time to the cause, and who had richly deserved the honor by her conspicuous services. The ladies have an executive committee of their own — meeting every week — working in conjunction with the chief authority; and in business capacity, attention to their manifold duties, and powers of management, they have proved themselves in every respect fitted for the responsible duties they have undertaken. The ladies have a fund of their own, and employ it well in the distribution of Primrose literature.

The reader of the London and county press, on taking up almost any newspaper, will see what constant activity is everywhere displayed by the dames, who in every parish in England are endeavoring to promulgate the fundamental principles necessary for the safety of the commonwealth. No ranting pothouse politician, full of fallacies, can compete with the men and women who, stepping out from the accustomed reserve of their own homes, come forward to meet their fellows in fraternal intercourse, and to discuss with them the origin of error and the ways of truth. The enormous increase in the number of the League dates especially from the time when the ladies first took up their place in its organization, and it is only due to them to acknowledge in how large a measure the great success achieved has been owing to their efforts.

When the first festival was held in 1884, after the new-born institution had been nine months in existence, there were a few thousand members, chiefly knights. By Primrose day, 1885, more dames had joined, and two thousand associates, and our muster-roll was upwards of eleven thousand. Before and after the election of 1885, the League expanded so rapidly that it was difficult at headquarters to keep pace with the demand for diplomas and warrants. On Primrose day, 1886, the

third hundred thousand was reached; while to day there are more than three hundred and fifty thousand knights, dames, and associates banded together in an enterprise that may now be esteemed a permanent institution.

In round numbers there may be said to be fifty thousand knights, thirty thousand dames, and two hundred and eighty thousand associates. The knights pay a tribute of half-a-crown yearly; so also do the dames, with the exception of those belonging to the Dames' Grand Council, who pay a guinea. The associates pay nothing to the Grand Council, but a small tribute, generally sixpence, to their own Habitation. The books and balance-sheets of the League have been audited by public accountants, and were approved by a committee of delegates at the last Grand Habitation. It is not usual to publish the accounts of political associations. Three years ago opponents would have laughed at the poverty of the League; now they carp at its wealth. But with the money it receives it has to maintain an organization that has become very large. It issues millions of tracts and leaflets; provides thousands of lectures where local eloquence is deficient or timid; maintains a large staff that necessarily increases with the work, and finds, for instance, that a thousand pounds does not cover the year's postage. Of the Grand Council, which meets once a fortnight with an average attendance of thirty, there is hardly a man of whom it may not be emphatically said that he is a man of business, and the best interests of the League are therefore closely looked after. It may be mentioned that already a portion of the tribute is remitted to Habitations to aid them in maintaining and perfecting their individual organization.

Some sorry sneers have been directed against the nomenclature and decorations of the Primrose League, but the answer to these is found in the fact that all are proud to bear the titles which testify to their energy and chivalrous work. The badges are of enormous value, for they are not only a certificate of membership but an absolute introduction into all Primrose circles, and thus give every member the opportunity of using his talents and influence in every part of the country. They afford also the opportunity of promotion in rank, and are accompanied by the distinction of clasps conferred for good service. Every associate can earn promotion, without fee or tribute, to high rank, upon representation by the Habi-

tation to which he belongs that he is deserving of the honor.

And here occurs the obvious reflection that any man making his way to distinction through the grades of the Primrose League has the road open to him for all political eminence. He who cares to study public affairs and to cultivate his talents, with a view to the persuasion of others and the defence of approved principle, will soon make his mark and be welcomed as one of those who can guide men aright.

The people have sought for a new faith in these times of change and turmoil. Many were led astray by the loud outcry of Radicals and Revolutionists. But a true doctrine has now been propounded. It is based on the highest traditions of British statesmanship as handed down by Pitt and Palmerston and Beaconsfield. The symbol is the popular flower, that suggests lessons of patience through the winter time, and breathes all the bright promise of spring; that blossoms beneath the imperial oak, and to all Englishmen speaks of home. It appeals to a people the most adventurous that the world has ever seen, ready to quit the mansion or the cottage at the call of the country on its world-encircling mission of colonization and empire. It reminds all of the blessings of constitutional government and true liberty based on the choice and the devotion of the people.

"Peace with honor," "Imperium et Libertas," and many another glorious motto are emblazoned on our banners. They will be carried to victory with all that determination and tenacity which has ever characterized the nation. The land of all the great kings and statesmen who have guided us from small beginnings to our high estate will certainly vindicate their memories, and take care that under the reign of our illustrious sovereign her realm shall suffer no loss, but shall be maintained and extended and consolidated as a glorious heritage for our children, a blessing to civilization, and an example to mankind.

ALGERNON BORTHWICK.

From Temple Bar.
SAINTE MARIE.

AN EPISODE.

SOME years ago circumstances led me to the French capital. I had no intention of living there, but, lingering on, I gradually formed ties and made it my home —

if indeed that can be called a home which was only an apartment inhabited by a solitary woman; but such as it was I grew fond of it. The quarter of Paris I lived in was pretty and quiet, without being dull, and had a local character peculiar to itself. It was much inhabited by rich tradespeople who lived in pretty villas. Everywhere there were gardens, and when I opened my window in the summer evenings, the air I breathed was balmy with the scent of flowers and the blossoms of trees and shrubs. There were even fields and fruit trees to walk among, and dewy grass; and, in the hush of the lovely evenings, one might hear the soft, rich voice of the nightingale mingle with the strange, silvery note of the equally invisible bell-frog.

The church, replaced now, in deference to the larger requirements of the parish, by a huge Romanesque edifice, was in my time a small antique structure standing on a slightly raised mound in a kind of small *place*, in the centre of which stood a monument to the honor of "Christ our Saviour and his servant the worthy —." The church was crooked, being sunk at the foundations, and had an odd, lop-sided look, the effect of having but one aisle; the other, legend said, having been swept away by the onslaught of an English army many hundred years since. Within, the little church was a still, calm place, except for the rustle and bustle of over-zealous, devout ladies, whom I generally managed to avoid. There was, however, one lady with whom, without any choice of mine, I there became inevitably acquainted, whilst executing in common with her a certain small parochial charge laid upon us by the good curé. She was a fidgety, little, elderly Italian widow, with straggling locks, and many old-fashioned furbelows and flounces and compliments. As to intelligence she seemed, as far as regarded this world, to have few ideas beyond the Italian *cuisine*, whose receipts she was always giving me; but her other-world horizon had, I soon discovered, the wide range which so frequently goes with simple faith. People are, I have often found, interesting in the degree in which one is interested in them, and so it fell out that before long this Madame Bruté and I, in spite of many differences of temperament and character, became fast friends. She lived at Sainte Marie, a large national institution which provided a home for poor gentlefolks with claims to government protection. The rule was that applicants for admission

must have reached the age of sixty, but nevertheless the home was the scene of love affairs—affairs sometimes wholly ludicrous, but sometimes not altogether void of real sentiment. I liked hearing Madame Bruté's stories of the old people, and I became very much at home in her comfortless but sunny room, which looked out towards the Seine, over the pleasure grounds, and in which every chair and table, and the bed as well, were always littered up with things strewed about—lace shawls, crooked bonnets, chocolate, prayer-books, bright-colored religious pictures, and perhaps a saucpan, all in confusion together, and she perpetually complaining of want of time. "Ah," she would say, "one has always so much to do when one lives alone; a stitch here and another there, and then one is old and falls asleep."

Her favorite topic of conversation was a certain Madame de Bellemaison, of whose charms and virtues and misfortunes she was never tired of talking. Her windows were just opposite those of Madame Bruté, and whilst she talked about her I became interested in watching the little white hand, on which a diamond ring sparkled, which was often to be seen at Madame de Bellemaison's window. It was a very pretty, plump hand, and held a fan which sheltered the face from the light; the rest of the figure, which one could tell from the attitude of the hand was always recumbent, being hidden from view by the window-sill. I learnt that Madame de Bellemaison was paralyzed and was fond of visitors.

"Absolutely, mademoiselle, you must come some day with me and see her. She was once a great beauty, and is still as clever as she is good and *spirituelle*. She knew every one when she was young, and tells the most charming anecdotes of a great world now become historical."

And so, without much reluctance on my part, it came about that I was one day introduced to the lady who owned the white hand. A prim *bonne* showed us in, and my friend herself announced me with sonorous Italian pronunciation of every vowel as "Mademoiselle Moôrë—a charming—" Here, fortunately for my blushes, our hostess with a benign bow and smile, and a pretty gesture of the hand, like a gracious little empress, made further introduction superfluous.

"Any friend of Madame Bruté is welcome here," she said, "and mademoiselle is very kind to come and see an old woman."

Her face was furrowed, but the features and complexion were still exquisitely delicate, and with her snowy, fluffy hair she was the very picture of an old French lady.

The maid had evidently been just reading the *Figaro* to her, and the little lady still kept her hand on it as if it were not done with; and in fact, as we presently learnt, her mind was occupied still by what had been read to her.

At first, as a stranger, and in a fit of awkward English shyness, I hardly spoke, though in my way I was enjoying my visit. My hostess's appearance charmed me, and then I discovered two portraits of her which were interesting to compare with the original. Both had been taken in youth, and were in old-fashioned dress. In one, she wore a broad Gainsborough hat with a long plume, the waist of the short-sleeved white gown almost under the armpits, the plump shoulders uncovered, mits covering the hands and arms half-way up to the elbow. In the other picture she wore a creamy gauze dress trimmed with soft yellow lace and red bows; her hair was powdered and puffed high over cushions, with a crimson rose at one side, and another rose was fastened in front of the dress.

Besides the portraits there was beautiful old furniture in the room, some ornamented with the brazen lyres and little figures of the empire, some evidently much older; it was chiefly French, with the notable exception of a lovely ebony cabinet ornamented with tortoise-shell and lapis lazuli, which, when afterwards she told me the history of all her pretty things, I knew had been part of the furniture of her own boudoir.

I was listening, too, delightedly all the time to the dear little lady's talk. And what a pleasure it was to listen! It was so finished, so racy, so epigrammatic, so perfect in every respect, that had it been taken down *verbatim* not one word would have been found misplaced. She seemed to have known every one I had ever heard of; and when presently, that I might not feel myself unnoticed, she pointedly addressed me, and I responded with a question which elicited some stories of political personages, historical only to me, whom she had known, how delightful the stories were! The words so simple and graphic, unkind never, but seasoned with just that little *point de malice* which gives flavor. Of every one she had something good to say. "But it was a *bonne âme*," was her favorite verdict. And once when she

repeated the words, and I with a smile replied, "I think, madame, that you must have a very *bonne dame* to see so much good in all," she said, rustling the *Figaro* a little, "I do not think, mademoiselle, that there are many bad souls. I at least have found good in even the least good. *Tenez*, when you came in my maid was reading the *Figaro* to me (we read it every day from beginning to end), and something in it stirred up old memories, and reminded me of a story of my young days which is a case to the point. Even a murderer is not always wholly bad. If you have time I would tell you the story. The remembrance weighs upon me to-day, and it might be a relief to speak of it."

We eagerly pressed her to do so, and she began :—

" You must have heard of him, I think; it was a celebrated affair. I lived then in the Rue de Lille" (here she waved her hand towards the centre of the big city) "in the house which still goes by our name. I was young at the time of my story, and my husband was away with his regiment, and the children and I had, besides the women, only one man to wait on us. This man, Jean, was a faithful, but slow, little Breton, who wore a velvet jacket and silver buttons, and his long hair down his shoulders, as our country-people do.

" The maids were only two of them from Brittany—the cook and the children's nurse. Whilst my husband was away I did not enter much into society, but our family was large, and so it happened that, although I refused invitations from the outside world, yet I dined out sometimes, and oftener still had little family dinners at my hotel. It was very *gentille*, my house, mademoiselle; forgive an old woman's pride in the long past; it is all gone now, all gone," she repeated with a bright smile, but something glistened in her eyes. " It had been furnished and prepared for me when I married, and was very pretty in the fashion of the time. Different from that of to-day, you know; furniture with visible legs, chairs not hard to get out of once you sat down. The rooms were hung with pale silks; one was amber satin, the furniture ebony—that was my own; and specially I prided myself on all my reception rooms being arranged so that one could talk in them. Talking was another fashion which I hear is going out. People meet nowadays, I am told, only and always to eat. Ah, well! eating is good in its way, but I think I should miss the conversation of

my youth. Not but that we ate too, and I was proud of my cook and of the compliments I received upon her skill. She was a short, sturdy peasant, like a strong pony in figure, and, though I saw much less of her than of some of the maid-servants, still I took a special interest in her, because she came from a village close to my own country home, and I had known something of her family all my life. She had a sad kind of manner, not like the gay, ready Parisians; but I knew the Bretons were rather heavy, and I paid no special attention to it until one day, when I went to order dinner, I found her in tears.

" Why, Victorine, *ma fille*," I said (she was old enough to be my mother, but it is our way, you know), " what ails you?"

" Ah, madame," she said, " it is nothing."

" But I insisted, and at last she sobbed out.—

" It is my son, madame, my son."

" Your son," I said; " why, is he not always abroad with his regiment?"

" Yes, madame, away, always away, but it is a long time. *Je m'ennuie*."

" Well, I sat down and made her sit by me, and I talked to her and patted her hand, and comforted her as well as I could, promising her that when Pierre came home we would make a *fête* to celebrate his return. And then I glanced at the clock, and saw I had no time left for ordering dinner, so I jumped up with the words,—

" I must run away, Victorine. I have promised my sister-in-law to meet her, and I cannot stay to order dinner, so I leave it to you to make us a good one. There will be four to dine, and mind you have something nice to keep up your reputation with *ces messieurs*. My brother and my brother-in-law are coming, and even the best of men, you know, Victorine, are a little *gourmand*!"

" She smiled, as I had intended to make her do, by my little compliment and joke, and I ran away, thinking what a blessed cure work was, for I knew her mind would be too busy with the dinner for her to fret, and that she would pray and cook alternately, or probably do both together.

" The dinner, mesdames, was so perfect that I still remember it. Such Ju-lienne soup, such cutlets, such fricandeau; all very simple, naturally, but different for instance from the dinner to be served us here to-day. My maid has just brought me the bill of fare. *Potage au vermicelle au gras*; *bœuf entouré de légumes*. Ah,

well, I do not want to complain. It is better than I deserve, and as monsieur l'abbé often reminds us, one must do penance either here or hereafter, and the more here accepted the less hereafter."

While saying this the little lady laughed softly as if pleased, and I, having heard from Madame Bruté of her self-denying alms and cheerful generosity, felt the charm of that *bonne humeur* which is the characteristic of French courage in small trials as well as in great.

"Well, mesdames," she went on, "we ate our little dinner very sociably; just a little *partie carrée* — my sister, her husband, my brother and I. We did not hurry ourselves. We talked, ah, such talk! We all knew our little Paris well, and the men were gay and kind, my sister full of *esprit*. There was scarcely a pause, and often we all forgot to eat for several minutes together in the heat of argument, or the delight of thrust and parry. Dinner began at half past six, a late hour for those days, but it was eight before the dessert was on the table. Still we talked and laughed, and laughed and talked, until a little accident disturbed us. My brother was helping me to wine, and he spilt some of it on my dress, to his despair, for, to tell the truth, mademoiselle, he had been complimenting me upon my toilette all the evening. There it is," she said, pointing to one of the portraits I have mentioned; "simple enough, you see; only a soft maize gauze looped and puffed over China silk with crimson bows; my hair a little powdered and brushed up, with a crimson rose fastened in one side with a diamond spray. So, when he saw the red stream running down my pretty dress, he jumped up, a naughty word full of *rrr*'s escaped him (he was generally so correct before ladies), and he rushed out of the room, not stopping to ring the bell, and called out for 'Jean! Victorine! Marie!' any name he could think of, to come and clean my poor dress. We, in the dining-room, smiled at his despair, but surprised that no one answered him, I too jumped up and went out to beg him not to trouble himself. But he paid no attention to me, and ran on down-stairs, and I, mesdames — excuse me, we were young, I only twenty-one, he not very much more — after him helter-skelter to the kitchen, where of course I expected to find only my own familiar servants. Judge then of my, of our, surprise when, bursting open the door, we found we had intruded upon an evening party. We stood transfixed at the door, framed by it,

I in the dress which was the cause of our intrusion, by my side my tall, handsome Bernard in his evening clothes, buckled shoes and silk stockings, dinner napkin still in his hand; and within, a regular *tableau vivant*. Two couples standing up to dance, mute and motionless now. Jean, clumsy, short, heavy, in his Breton costume, with his long black locks hanging over his shoulders, holding his partner's hand; she, my maid, a fine, tight-laced Parisian in the neatest of costumes, her high-heeled, buckled shoes showing beneath her short, well-made skirts, her cap prim in shape in obedience to me, but put on in the most coquettish manner. The opposite couple, a rough stranger boy in a blue blouse, in his stockingfeet — he had kicked off his wooden shoes to dance; his partner a humdrum, stupid-looking little housemaid, whom I had taken out of an orphanage. Victorine the cook was seated in her high-backed, wooden *fauteuil*, a hand laid on either knee, in one of them holding the sock she was always knitting for her absent Pierre. The younger servants at different ends of the room, one washing dishes, another carrying bread and cider in through an opposite door, and standing in her astonishment stock-still to gaze at us. The table, which usually stood in the middle of the room, was pushed up against the wall, and on it was seated another stranger, a tall, dark young man with a penny whistle in his thin, strong fingers. I remember even then noticing how strong and fleshless those fingers were.

"Victorine!" I almost gasped.

"Oh, madame," she said, jumping up. "Oh, madame! I beg madame's pardon. This is my son, of whom madame has often heard me speak, come home unexpectedly, and — and — a comrade of his, madame. I have told him, madame, he must never bring his friends here again — such things are not done in good houses like madame's — but for this once — he is young, ignorant, has not seen a house like madame's before — if madame will this once pardon him."

"Meantime the *tableau vivant* had changed. Before us stood culprits awaiting sentence. Only the strange young man with the whistle kept his self-possession; he had slipped noiselessly off the table, and stood by it erect like a soldier, watching us.

"Suddenly Bernard and I both smiled, and then the ice was broken.

"So this is Pierre," I said. "Why, you have stolen in upon us like a thief.

If you had let us know when to expect you, we should have given you a better welcome. The mother Victorine and I had it all arranged, had we not?' I said, appealing to her.

"To my surprise something, either in my words or manner, seemed to confuse both Pierre and his mother; and I, feeling as if I had, in some unintentional manner, been severe, and hardly knowing how to set them at their ease, turned to the young man near the table, saying,—

"'You are the *band*, monsieur, I suppose?'

"He shrugged his shoulders with an air almost of patronage, 'I whistled, madame; the others danced.'

"'You like music?' I inquired.

"'Yes, madame; it is my profession. I am a military bandsman.'

"'Listen, Celestine,' I said, turning to my maid. 'Perhaps this monsieur plays the fiddle too; it would be better to play and better to dance to than this. Run up-stairs and get the one there is behind my *secretaire*.'

"It was an old fiddle I cared little for, and only kept for old acquaintance' sake. My dancing-master had used it. Something about the young man interested me, even surprised me, and I felt a great curiosity to hear him play. So when Celestine reappeared, I asked him if he would begin the music before we went up-stairs. He took the instrument up, calmly tightened the strings and then began. First he played with infinite pathos the quaint 'Il pleut bergère,' and then, the poor little old instrument vibrating under his long, lithe fingers, he changed to the slow measure of a country dance, adapting to it first the familiar air of 'Plus on est de fous plus on rit,' and then with skilful cadence 'Te souviens-tu.' My brother and I listened, astonished, and watching the young musician, who, his face flushed now as he warmed to his art, looked like the picture of some Italian improvisatore, with his brown throat, his dark hair, and his expressive countenance.

"But when he paused, Bernard nudged me, and I remembered we were probably wanted up-stairs and not down-stairs. So turning to Victorine, I said,—

"'Do not hurry to end your *soirée*, my good Victorine. And pray arrange with Pierre to come again soon and bring his friend with him. On Sunday you might give them a little dinner and have some music after.'

"Then Bernard and I went up-stairs, where he made the most of our adventure,

and gave a graphic account of the scene, omitting no detail, from me framed in the doorway, aghast in my pretty, stained yellow gown and powdered hair, himself behind me in his pumps and tights, to the maids and men within, all dumbfounded.

"From this time the aspect of kitchen life in my house was changed. The musician became very popular, and he and Pierre being constantly down-stairs, came at last to have a sort of nondescript foot-ing amongst my people. I confess, mesdames, that in those days I was very—what shall I say?—impetuous, impulsive. I mean, that so soon as a thought came into my head I liked to have it put into execution; so I found it agreeable to have a larger retinue than I could otherwise have afforded, and thus I made use of the young men, always supposing them to be on leave and glad of odd francs and dinners. The musician, Paul, was my favorite. Pierre was useful in a thousand ways for rough kitchen work, but Paul was all intelligence and skill, never at a loss ask him what one might, always at hand when wanted—never in the way. By degrees, too soon, perhaps you will say, I trusted him implicitly, and confided to him all my commissions, especially when there was need of a sure hand. I remember once I got five hundred francs from Bernard—it was Paul I sent for them to him; another time my cousin borrowed my plate for a large party she gave—it was Paul I sent with it to her. In the evenings when I went out wearing my diamonds and the old De Bellemaison pearl and sapphire and emerald set, Paul came with me to sit on the coach-box, and be my guard. His manners were very gentle, and I understood how he came by them when afterwards I learned how he had been brought up. He was very kind to my children too, and when they had scarlet fever he nursed them night and day. At first he came up to try and amuse my little boy before he knew what was the matter, when he was sickening, and then when the nurse fell ill too, he would hardly leave the room to lie down or eat his meals. And when the children were getting better he stayed with them and amused them, and brought them little clever toys he made for them, and put up with the childish irritability of their convalescence with more than a woman's patient tenderness.

"Of course, mesdames, devotion like this touched me, and I grew almost to love the strong youth who was so gentle

and protecting to me and my little ones. He treated me as if I were a princess or a bit of china that would break, and he even seemed to love my pretty dresses, and shielded them from every rough touch as if they were part of myself.

"Judge then, dear ladies, of my horror at what followed. One day I called for Paul, and was told he had not come; the next day and the next, the same thing took place. The third day I was alarmed, feeling sure something must have happened to him. Pierre came as usual, but knew nothing of his friend. They had different lodgings, and Pierre had not found Paul at his rooms when he called. I was very anxious for my brother to come, as I hoped he would suggest to me what steps I could take to find out about the youth, so I felt relieved when I heard a ring at the door, and Bernard's quick step on the stairs. Then he stopped and I heard voices; he was talking to some one — probably to one of the servants. I waited for a few minutes, then sprang up in my impatience and, opening the door quickly, I went to the corridor, and leaning over the banister called him.

"'Bernard, Bernard,' I said, 'come; I want you.'

"He was talking to old Victorine, which struck me as odd, and both of them seemed startled by my voice. Victorine too, I noticed, tried to crumple up and hide a tiny printed newspaper sheet she had in her hand.

"'Coming, my dear,' he said, 'coming; wait one minute.'

"Terror seized me; my husband, something had happened to him; he was away. I almost fainted, and I gasped out his name, —

"'Henri, Henri.'

"'Do not frighten thyself, my dear,' said Bernard — my dear good Bernard — rushing to me to support me then as he did afterwards in many a terrible sorrow. 'Henri is well. That is, I have heard nothing of him or from him, absolutely nothing, but what my little sister herself has told me.'

"'But the newspaper, then? Why did she hide it? I must see it. I must know what it is I must not know.'

"'Oh! naughty Eve,' said Bernard with such natural playfulness that I was partly reassured. 'You shall know, else you are sure to imagine something a thousand times worse than the reality can be. It is only your Paul. We know nothing, but there has been a crime, and Victorine thinks he —'

"'Has been assassinated,' I cried, womanlike, jumping to a conclusion. 'I knew something dreadful had happened to the poor lad, or else he would not have stayed away.'

"'No, not that,' said my brother calmly. 'Victorine was just telling me he had not been here for some days and that you were anxious about him, and there is something here which she was just going to show me.'

"He took the little old-fashioned sheet out of her hands — it had reappeared from the pocket whilst we had been talking — and read a few lines aloud. There had been a horrible, cruel murder of an old woman, with robbery. The guilty man had been taken prisoner, and was described. This was the description: 'The man is about twenty-five years of age; he is tall, and *distingué* both in face and general appearance; he is dark; his eyes are of a peculiar yellow-brown; his features good; teeth white. His hands are long, lean, and sinewy. He gives the name of Paul, and refuses to allow that he has any other.'

"I felt that it was Paul, *our* Paul; but the more I felt it the more indignant I was with myself and with the others for thinking anything so dreadful of the poor kind boy. So I tried to laugh it off.

"'What a fuss!' I said. 'Why should it be Paul? Of course he would never hurt any one, much less a poor helpless old woman. Wait, he will be here presently, and then you will be ashamed of yourself, Victorine.'

"'Ah! if madame knew,' she began, and then her eyes filled with tears, and she sobbed out, 'I have been a wicked woman. It might have been madame herself, or the dear babes he killed. He was in prison, madame, before we ever saw him here, and Pierre, too, madame. Oh! madame, pardon me, I pray you. I never meant to deceive you. They met at the prison gate as they were discharged, and Pierre brought him here, and I did not know myself for a long time.'

"Little by little between her sobs the whole story came out. Her son and Paul had been in the same regiment, had been both in the same prison upon different charges — Pierre for drawing his sabre in the street to defend himself from arrest when not quite sober; Paul for attempting to burn a house down. Both had been discharged on the same day, and had returned to Paris together the very day my brother and I interrupted the dancing. As I listened I felt only too sure that the

murderer of to-day was the kind, almost friendly, domestic of the past months. I almost broke down as with a rush I felt the danger my children had gone through, and then, less selfishly, I remembered Paul himself, his faithfulness at least to us, and then where he was now and what awaited him.

"I will go and see him," I said. "Poor boy! I must try to help him."

"In vain my good brother and the others dissuaded me. I had made up my mind, and no obstacles would have prevented me. I got an order to visit the prisoner, with some difficulty, and only after a delay of three weeks.

"Then I saw him alone, in a little cell which I was not allowed to enter, nor might I touch him. I stood looking at him before he saw me. He was very pale.

"Paul, Paul," I said softly.

"He started, then flew towards me, his long fingers twitching agitatedly. He made a gesture half as if to welcome, half as if to drive me back.

"Madame must go," he said sullenly.

"No," I said gently; "you are in trouble. You have been very good to me. I came to hear yourself. I cannot believe the others."

"He covered his face with his hands and did not speak. I waited patiently with my little prayers, and presently his hands dropped, and he said in a strange, unfamiliar voice,—

"Go—go—it is true—I killed her."

"I shuddered—ah! it was a crime so dreadful in the newspaper account—but I would not, could not, leave him without any word of pity.

"Paul, Paul," I said, "speak to me."

"I cannot," he said.

"Well," I said, "I may stay ten minutes with you. I will wait."

"So I stayed, stayed on, and he did not speak, nor did I to him. Only I said my prayers over and over, and at last I spoke.

"Paul," I said, "*mon pauvre Paul*, you have been kind to me, done much for me. Will you promise me something?"

"But yes, madame," he said, and then his whole body shook with emotion, and he whispered, "Madame must go. I cannot bear it. She is an angel; this is no place for her," and he looked at me with his great eyes, softened I thought with tears, his face deadly white.

"Then, dear ladies, I, who am not good at all—who loved, who love still a little, alas! I fear, soft things, and the world a

little too, perhaps—felt all at once what an awful thing a soul, an ever-living soul, is.

"Paul," I said, "I am not an angel, not good at all, but I love you, my poor, poor friend. *Tenez*, you, Paul, are brave—I know you are not afraid to die; but I, I cannot bear it for you, because I do not know, my friend, what awaits you. I want you then to love the good God and his dear Mother, and to promise you will do what I ask."

"So I made him promise, first, that he would see the prison chaplain and listen to him, and try to do what he told him; secondly, that he would wear and sometimes kiss, and especially kiss the *last thing*—a little blessed crucifix I would send him by the chaplain. I might not give it to him myself. And then the time was gone, the warden touched me gently on the shoulder and told me I must come away.

"Adieu," I said, but there was no answer. And so I left him, meaning to return. Before I left the prison, however, I saw the chaplain and told him about my poor Paul, and when I came away it was with a thankful feeling that in him the poor boy would have a stronger friend than I.

"I never saw Paul again. The shock had upset me a good deal, and I sickened afterwards of scarlet fever, which had spread through the house when Paul and I together had nursed the children. They told me that when I wandered in my head I thought he was nursing me too, and that I was always talking to him about *le bon Dieu*, and his soul. My illness was long and complicated, but when I was better he was one of my first thoughts, and I sent to beg the good old priest to whose care I had committed him, to come and see me.

"He came at once. I was still in bed, but I could not wait. He stood by my bedside, his tall figure and snow-white head bent over me; his face was very kind but very grave. He thought I knew, so he made no attempt to break it to me.

"All is over, madame," he said simply, "as regards this world. Pray for him confidently. He died very bravely, very calmly. An hour before, he bade me tell you that his last words should be those you wished, and that he hoped you would remember him in your prayers. May God have mercy on his soul. He was brave and true in some things, in spite of his crimes."

"And then there came a silence, and I could find no word to break it but 'Merci, monsieur l'abbé, merci.'

"Then he spoke again, to tell me that Paul had asked to see him one day as a friend, and had told him the story of his life, and asked him to tell it to me if he should ever see me again.

"Paul's father had been rich and noble — his name Paul would not tell. His mother he had never known, but she was not his father's wife. His father had been an old man ever since Paul could remember, and Paul had been brought up in his bachelor household with every expectation of inheriting a competence at his death, and without much instruction or training of any kind to fit him to make his way in the world. The old man became paralyzed when Paul was about ten years old, and a woman-servant of high temper who attended him, and whom he greatly feared, gained such influence over her charge that at his death it was found that he had bequeathed everything of which he could dispose, to her, and left Paul penniless. Cast thus adrift upon the world, with anger and hate in his heart, the boy was drafted into the army, where for a time he did well, as his talent for music was noticed, and he was put into the band. But his companions were bad, and he was led astray, and took to drinking more than was good for him and enough to inflame his hot nature. One day whilst under the influence of spirits, exciting himself with wild talk about his wrongs, he had made the attempt to burn down the old woman's house, bought with the money which should have been his. This failed, and he was arrested and imprisoned. He came out of prison, fiercer, wilder, than he went in; but for a time the gentler side of his nature was developed by contact with my trusting little ones, and the rest of us, all believing in and accepting him without suspicion.

"But the old enemy overcame him — and again he fell. When drunk he must have been a madman. He killed her, mesdames, the poor, helpless, cruel old woman who had robbed him, and in his turn he had robbed her of his father's money, his father's watch, his father's plate!"

The dear little old lady's face was pale, and she sank back; and, feeling that we had allowed her to exhaust and overtire herself, we left her, with many excuses, as the dinner-bell sounded the hour of the distasteful meal.

MARGARET MARY MAITLAND.

From The Fortnightly Review.
PASTEUR.

I AM asked to write an informal article on the inoculations for rabies which have been going on at the now famous pavilion of the Ecole Normale. I comply with much diffidence, my opinions, I fear, not being those of the multitude of all nations, tongues, and languages, who have neither had direct impressions of what goes on there, nor opportunities to sift the evidence on which they assume that cures have been operated. The subject is intricate, perplexing, and so important that I should not so much as flutter round it, were not the appeals of Pasteur for help to found his institute made almost entirely to laics. There is therefore no presumption in one of the class to which he chiefly trusts for assistance writing about the savant himself, his life, works, and most recent aims and objects.

And first, as to know what manner of man Pasteur is. Shrinking as I do from cruel vivisection on the one hand, and from idolatry on the other, I cannot give a point-blank answer. There are some features in his new departure which I think would demand the most subtle psychological analysis. But taken all in all, Pasteur is a man who would find advantage in living in a glass house. He deserves just now a high meed of praise for remaining free from arrogance, although he is not always free from impatience at being contradicted. The aspect daily presented between ten and eleven o'clock at the corner of the gravelled space in front of the Ecole Normale, where his pavilion stands, speaks strongly to the eye of his wide-world fame and of the hopes placed in his treatment for rabies, by a crowd as motley as the peoples and social strata of Europe, north Africa, and America. Must I also say, that the throng is suggestive of craze-mania and unthinking panic? There are also in it persons who strike one as having cleverly profited by unimportant scratches and abrasions, to get themselves treated to a gratis ten days' trip to the brilliant French capital. A playwright could find among these patients matter for amusing comedies. There is the young lady whose loving but economical papa would never, never take her on a visit to Paris. She, however, saw in Pasteur's inoculations a means for having her own way, got herself scratched, said it was the dog did it, affected terror, and was whisked off from her native town in the Dordogne, to a boarding-house near the Luxem-

bourg. The truth only came out when she was in the crowd that awaited inoculation. Again, a Wall Street millionaire, who has the subtlety of Venice and Judea combined, with the smartness of a Yankee, saw one day in an almost forgotten scratch on the face of a beautiful daughter an opportunity to bring her out in Europe with *éclat*. He had read in the papers that M. de Freycinet was the intimate friend of Pasteur's son-in-law, and when he arrived at the Rue d'Ulm subscribed, on learning that no fee was taken, a sum represented by four cyphers. Next evening he and the young lady occupied the president's box at the Théâtre Français and they were fair launched *dans le monde Parisien*.

The Pasteur pavilion is a detached house one-story high, standing at right angles to the main building of the Ecole Normale, and facing the broad gravelled stretch between the front of the institution and the Rue d'Ulm. In its façade there is a central hall door, flanked on each side by a couple of windows. The two nearest to it light the hall, a square room papered in dark green and wainscoted in pale oak. To the right there is a parlor, which is also a good deal of a chemist's workshop, and to the left a study with two windows, one of which is on the north and the other on the west side of the room. Everything here has a workshop air. The bookcases are not glazed. The portfolios on the shelves are of the commonest sort. On other shelves there are retorts, tubes, phials, and microscopes. The tables are deal, painted black. A man sits with his face to a window, in the west or hall-door façade, in the early hours of the forenoon. From nine to half past ten he is to be seen opening, reading, and sorting telegrams and cablegrams. He files some and flings others into a large basket near him, which is full to overflowing before the inoculations begin. As his back is to any one entering the room, to see his face it is necessary to return to the gravelled space and look at him with the full light of day pouring on his face, quite unconcerned at the two hundred and upwards pairs of eyes that are gazing at him. Pasteur may be clerical or reactionary, but he is *égalitaire* when he treats for rabies, and pays no heed to external signs of rank and wealth. He is obliging to all in the manner of a kindly, hard-worked man, who has no time to lose in idle talk and empty compliments. His conversation with a new-comer, however important or well in-

troduced, is limited to "How do you do? What can I do for you?" (this not dryly or gruffly). And on being told that the visitor wants to be inoculated, he says, "Good; go and wait your turn with the others." He asks very few questions, indeed sometimes none, about how applicants for treatment came to be bitten, and does not like to hear that the dog which inflicted the bite has not been killed. "Dogs suffer so dreadfully when rabid that it is a humane duty to kill them at once." Yet he must know that no diagnosis of rabies is complete unless the dog first dies of that disease.

But I am letting my pen run away from my description of Pasteur as seen through the window. The first thing one notices is that he has the bronzed complexion of a military veteran, and a good deal in the general expression of the face of a grave old soldier. The former must have been inherited, as his life has been sedentary, and the latter may possibly be the result in infancy and boyhood of conscious and unconscious imitation of his father — *un brave de la grande armée* until 1816 or thereabouts, when he set up a little tanyard near Dôle, in La Franche-Comté. It is well for those who want to scan the savant reading the blue despatches that he sometimes takes off mechanically his black velvet smoking-cap, which he ever wears at home and in his laboratory. The "dome of thought, the palace of the soul," shown by its removal, is solidly constructed, spacious and high, without being high arched. A man with such a head could not help making his mark in life. The mind is at ease in a dwelling so spacious. All the lineaments bespeak self-will and the habit of hard, patient, and persevering work. A nose that would be lumpy if shorter is wrinkled in all directions at the bridge. It is the sort of low nose with a thick, advancing, downward end, semi-*retroussé* and semi-dipping, which one sees in the effigies of antique French warriors, and which Mercié has given to his equestrian statue in this Salon of the Constable de Montmorency. A short, scant beard does not hide the massive, fleshy, and yet not heavy outline of the under part of the face. An air of thoughtful gravity pervades the countenance. But there is something of the African feline in the topaz-yellow eyes, which, when the smoking-cap is taken off and the head thrown back, stare right before them at vacancy as if to rest the optic nerves. I have never seen a human being with eyes like Pasteur's; they are

sometimes lighted up by flashes of scientific inspiration. But one does not see this at the window. There is observable there something which the constant use of the microscope has induced in displacing focuses, and enabling the visual organs to pass in review the infinitesimal and, to the naked eye, invisible scavengers whose mission it is to clear away detritus in and around us. But the topaz color is more peculiar than the expression. Heavy lids of a dark bistrous tint half hide the yellow iris. One of them droops a little. There is a network of wrinkles at the temples, and lines and interlines about the brow and side of the nose. One sees that the right hand drags as the telegrams are opened, filed, or thrust away. The neck is short and bull-like, the shoulders broad, and when the savant stands up his figure strikes one as squat, though not to an excessive degree. At home he dresses carelessly in an old pea-jacket, on the breast of which there is the red rosette of an officer of the Legion of Honor. When he goes out his loose-fitting clothes are as neat as a soldier's on parade, and the boots are of as high a polish as the much-vaunted Messrs. Day & Martin's paste blacking can produce. In taking constitutional walks in the Luxembourg Gardens he is sidem without a young disciple, on whose arm he leans. Pasteur is threatened with total paralysis, and has had an eighteen years' struggle against hemiplægia.

We are still in the gravelled space. The clock strikes half past ten, and every one feels that the performance is going to commence. Pasteur rises from his seat before the window, takes up a small ledger, and going to the hall door invites the crowd to enter *à la queue*. He stands at the door between the hall and study ready to make a roll-call. Doctor Grancher, through whose medium he operates, enters and sits down in an armchair in the recess of the northern window facing the door. A side light from the western window falls on his face. On his left is a table with ten glasses containing a substance which looks like starch, but is peptonized gelatine, having in it nine different degrees of tamed virus, and the rabid poison in its pristine strength. No. I. is the weakest, No. X. the most potent. The doctor is middle-aged, slender, bald, sandy-haired, self-possessed, pale, has a Mephistophelian profile, and never by any chance says a word to anybody. His air is one of utter indifference. He is merely Pasteur's authorized medical instrument.

But under his indifferent manner keen watchfulness peeps out. His hands are in black kid gloves, which in sitting down he carefully examines, to see there are no holes. The doctor operates on all—the scrofulous, consumptive, scabby, the healthy, the young, the old, the maiden, the child, the gallant soldier, etc., etc.,—with the same hypodermic syringe. He does not wash it between the inoculations or the categories of inoculations. Each patient on coming up to him bares his or her abdomen. The ladies have shown ingenious contrivance to avoid indelicate exhibitions. Nevertheless some of them redden like peonies, and others all but cry. Grancher pays no heed to their blushes, nor to their welling over eyes, and operates as if they were anatomy-room subjects. He takes a bit of the abdominal flesh between a finger and thumb, drives slantingly down under the skin the needle, and injects. This syringe is an elegant little instrument like a case pencil. There are times when his eye, it seems to those who watch him, expresses scoffing scepticism. It seems to say, *tas d'imbeciles*. He is not in Pasteur's secret. This contemptuous glance may be perhaps explained by the fact that the crowd emits a worse odor than a collection of old and freshly worn shoes. French and Belgian peasants are clean and neat, but lower-order Spanish, Portuguese, and Russians are dirty to a loathsome degree. The Kabyles have a passion for clean linen and cold water, and never fail to wash their feet under the tap in the courtyard of the Ecole Normale. Patients are called by Pasteur according to the date of their first arrival, so that the viruses they receive shall be graduated from the first to the ninth dilution. But most of the names being foreign and the savant's mouth unaccustomed to any tongue but French, the order of inoculation is sometimes inverted. I saw myself a number-eight virus injected by mistake into an abdomen which had been only thrice punctured. At roll-call time Pasteur is kind and bustling. It is to me a miracle that he has so few signs of intellectual pride. He is in ready sympathy with children. The moment a little one sobs or whimpers, in go his fingers into his waistcoat fob and out comes a silver coin, which is slipped, with the accompaniment of pats on the back and head, into the young thing's hand. This is done spontaneously and from pure good nature.

In sketching Pasteur I should not overlook an under stratum of that Franche-

Comptois shrewdness which has enabled M. Grévy to climb to the highest position without exciting hot rivalry. Pasteur is attached to his native province, and often goes there to renovate himself in the place in which his boyhood was spent. His wife, daughter, son-in-law, and even a youthful grandchild, can be his intellectual companions. Madame Pasteur comes from a pedagogic family. She and her daughter studied science so as to be able to aid the savant in his researches into silkworm diseases when he was laid up with paralysis. Her name was Laurent, a French rendering of Lazarus. The granddaughter is the companion of Pasteur's walks and hours of idleness. She is four or five years old, thoughtful, earnest, and concentrated beyond her years. Her strange dark eyes have also topaz gleams, which show that the bulging forehead above them is pushed out by brains and not by hydrocephalus. Pasteur's family affections are strong. There never was a kinder or more dutiful son. His vocation was to be painter, but to please his father, who was ambitious that he should be a schoolmaster, and his mother, who had an almost lower-order Irish passion for "book-learning," he took to science as it was taught in his boyhood — out of books. A professor under whom he was then turned his attention to chemistry. At this juncture a schoolfellow was given a microscope for a birthday present, which he allowed Pasteur to take with him on holiday outings. The instrument opened to him a universe, and eventually put it into his head to take up the investigations of Swammerdam and Robert Boyle, in which Swift found the subject of "Gulliver's Voyage to Lilliput." Boyle, indeed, was the Columbus of the domain of science which Pasteur is now exploring, and divined that plague, pestilence, and famine were caused by the infinitely small scavengers trying to clear away morbid as well as wholly dead organisms. Raspail started the same hypothesis to explain epidemics and contagion, and declared that as camphor was the mortal enemy of parasites, it was a sovereign remedy against the maladies they caused. Doctors Rayet and Davaine made in 1852 a further step in the direction which Boyle indicated.

Pasteur has been denounced as an arrant quack by those not believing in his prophylaxy for rabies. This shows want of critical acumen. Few souls are in perfect balance with the minds that are bound up with them; and it is only very rudi-

mentary natures which are homogeneous, or, as the French say, *tout d'une pièce*. There are men of such integrity that they could remain single-minded when great interests were in conflict with the preservation of singleness of mind. But they are few and far between, and hardly ever among the successful. The world values them not, and they are to my thinking the strongest of all arguments in favor of a hereafter. I shall not attempt to justify Pasteur or to join with his detractors in calling him an artful quack, but shall merely state his situation, and leave to some future Balzac the task of deducing from it a judgment. The world has been asked to subscribe £80,000 for an institute for the prevention and cure of rabies. Pasteur is in his sixty-fourth year, and has not the strength and ardor which used to bear him up in scaling the most icy peaks of scientific knowledge. He must wish to be independent of a minister of public instruction whose favor depends on a capricious Chamber. I do not believe that he is sorry for having thrown himself in youth with disinterested passion into the pursuit of science. But he would not be human if, with his infirmities and family affections, he did not regret not having made science subservient to mammon. French chemists of ability who within the last thirty years have given an industrial direction to their researches, have struck upon gold-mines. Coal-tar dyes and other extracts brought in millions to those who found out how to make them. A chemist discovered in the detritus of a gas factory a scarlet which took from the madder-growers of the Vaucluse twenty-three millions a year. While these discoveries were being made Pasteur was going into molecular chemistry and sustaining his famous controversy with Pouchet about spontaneous generation. Pouchet's view of animated nature was much like Topsy's when she said, "Spect I growed." But he denied the *ab ovo* because he said there was no original egg. This wrangle brought fame to Pasteur, but no wealth. However, it had the effect of placing an agreeable cup close to his lips — a cup snapped from him just as he began to taste it. The materialists and atheists were for Pouchet, so that when M. Duruy, the only liberal minister of public instruction the late emperor ever had, recommended Pasteur for imperial favors, the bigots around the empress had no objection to make. He was sent on a mission to the ravaged silk-worm districts and then given a place in

the Senate. When this was offered him he had just gone through a terrible illness, and the curule chair afforded him a grateful haven of rest; but the empire collapsed before the ink on the decree raising him to the Senate was dry. He was bitterly disappointed. It must be owned that he has ever since made pecuniary emolument go hand in hand with scientific study, and kept the sharpest eye to the main chance. His country has treated him handsomely, but government patronage from which the element of jobbery is excluded is very poor in the way of money rewards, compared to what the public at large can do for a man for whom there is a rage, or who benefits by a successful "boom." Pasteur does not despise his really handsome subsidy (50,000 francs a year) in appealing to the wide world for the £80,000. The appeal is based upon the alleged efficaciousness of inoculation for rabies. This greatly complicates the task of forming a judgment on the value of his prophylaxy, a value mainly dependent upon belief in Pasteur himself, since he keeps the exact nature of his method a secret. He claims to prevent — mind, not *cure* — rabies by inoculation with viruses of different degrees of rabies, or to steal a march on rabies already in the blood by a virus that has obtained increased velocity in going through the bodies of certain animals whose organizations do not offer much resistance. The "taming" process is accomplished by exposure to air of the virus before it is inoculated. But the exact way in which Pasteur manipulates it he alone knows.

Some of Pasteur's theories, enunciated when he was in the plenitude of mental and bodily strength, do seem in contradiction with his prophylaxy of tamed viruses. He certainly favors the hypothesis that the microbes of a virus brought artificially into the blood use up some element of the globules which is slowly elaborated, and which is essential to the commissariat of the advancing animalcular foe. What this element is he does not presume to say. He has, however, shown conclusively that in mammals the vital organs, the secreting organs, and the blood in a normal state are an impenetrable to the organisms infesting the mucous, stomach, and intestines. Each mammal is like the chief of a garrisoned stronghold. The skin is the outer defence, and the garrison that concert of inner forces which no physiologist has yet been able to analyze, and which is known as vital resistance. Another defence is the greed with which

healthy blood globules absorb oxygen. When they hunger for that gas, vitality is strong, and receptivity of disease is insignificant, so that microbes of the air-breathing kind which get into the blood are in a bad plight. Before they can multiply they are smothered. It therefore would seem to a lay mind that Pasteur's later teachings are at variance with his theory which attaches so much importance to the health of blood globules as shown in their avidity for oxygen. Unhealthy globules are without appetite for this quickening and consuming substance, and as the policeman mistakes the famine-stricken wretch who staggers, for a drunkard, so the microbe scavengers mistake inert globules for dead ones and try to clear them off. Lister got well into his head — and from Pasteur — the idea of the impenetrability and the whole skin principle. He in London and Professor Doremus in New York worked out the latter so well that hospitals there have ceased to be festering dens of contagion.

I myself heard Pasteur vaunt his prophylaxy for rabies in terms which made me think he did not perceive the conflict between what he said on this occasion, and the theory which Lister and Doremus took up. A lady whom he named had told him that whereas before she came to him to be inoculated for rabies she was a wretched eater and worse sleeper, she was ever since ravenously hungry, and always drowsy. Consumptions and other wasting maladies produce in their early stages these effects. I also heard Pasteur speak of the inestimable good a thorough belief in a cure for rabies was certain to effect. The nerves of many persons were so shattered by fear that, although bites were inflicted on them by non-rabid dogs, they died as painful deaths as though a virus in the canine saliva had got into their blood. Children, certainly, are worked into terror of dog-bites by persons interested in them, who want to keep them out of harm's way by making them of themselves avoid dogs. When a child, I was always hearing stories of how dog-bitten men and women who were frothing out of the mouth in convulsions, and wanting to bite every one, had to be smothered between feather-beds. In my waking moments I was not in the least afraid, but for years I dreaded going to sleep because of the dreams I had about mad dogs, encounters with them, and rabid symptoms in myself. I dare say that had I been bitten by a perfectly healthy dog I should have then gone mad unless a Pasteur in

whom I had implicit belief had come to cure me. I half suspect that Pasteur's expressed desire that biting dogs should be straightway killed, arises from a wish to help his remedy by preventing the patients from thinking that there is certainly rabid virus in their veins. If the canine animals in question died of hydrophobia vital resistance might be prostrated by fear. Pasteur recommended instant dog-execution to a Dr. Carter who came with the Shipley children to the Rue d'Ulm. He spoke to the same effect to the American doctor who brought the Newark children there. But the reason which he gave in these and many other cases was the duty of humanity to dogs, "their tortures when rabid being intense." The American doctor said the Newark dog was carefully preserved because if it did not die it would be possible to say whether a cure had or had not been effected. It is still alive and shown with the children who were taken over here and inoculated to, as it has turned out, qualify for an exhibition at New York. Nervous panic does unquestionably produce simulated rabies.

Dr. Carter of Shipley, whom I have just named, was one of the many medical men escorting patients to the Rue d'Ulm, with whom I have conversed on what goes on there. He has had unusual experience in hydrophobia, having treated eight cases, one of which was caused by the scratch of a cat. He knew a death from rabies—or at least a death with every rabid symptom—from the bite of a dog never ill, and yet alive. There are some organisms refractory to rabid virus, and others which serve it as a hotbed in hastening incubation. Again, a virus, it is held, may lie dormant for two years or more after a bite. The wife of Colonel Gowen, who raised the sunken war-ships in Sebastopol harbor, has just told me of a Russian boy in her service who died more than two years after he had been bitten. I question whether secret fears and bad dreams, caused by alarmist stories when he was an infant, were not the reason of his death. Russian peasant mothers greatly prefer the alarming tale to the birch rod in trying to keep their offspring out of mischief.

Dr. Carter seemed to me to enjoy more independence of judgment in reasoning on what he saw of Pasteur's method than most of his professional brethren from foreign countries with whom I talked. He was astonished to see babes and adults vaccinated with the same hypodermic

syringe and virus of the same degree of activity. He had also expected that there would have been some inquiry as to temperament and previous health, and that microscopic examinations of the blood of each patient would have been made before treatment began and while it was going on. Dr. Carter attaches no importance to any cauterity that is not immediate, so far as it may be supposed to check the entrance of a virus into the blood. But it may be valuable to prevent terror and nervous prostration. He has been led by the exceptional chances he has had of seeing rabies to give the subject his thoughtful attention, and has only come to a conclusion in which nothing is concluded. In his opinion great importance should be attached to the antecedent health of the bitten person—an opinion which all I saw of the wolf-bitten Russians justifies. Two out of five of those who died at the Hôtel-Dieu were previously in weak health. Two were so fearfully mangled that I should have thought it miraculous if tetanus had not set in; and the fifth, Golosewski, who had remained a whole night in a tree, was, if young, adipose, of a lymphatic white complexion, and a feminine figure. I should have thought him scrofulous. None of his wounds were deep, and the incubation of the virus was slow. There were in the lot some powerful and very badly wounded men who were not ill at all, or even out of sorts. They pulled through splendidly, though bitten on the same day as four of those who died. M. Pasteur must have overlooked this when drawing up his report of April 12 to the Institute. He then wrote: "The incubation of wolf rabies is much faster than that of dog rabies, *puisque elle ne dépasse guère de cinq à treize jours.*" It may not be idle to remark that the *vrachts*, or Russian country surgeons, who came with the Smolensk peasants, shook their heads when, in dressing the wounds of Golosewski and others who died, they saw that thin blood almost bereft of fibrine came oozing from them. They prophesied no fatal ending in the case of a woman whose upper lip was bitten off because the wound at once cicatrized. She recovered.

I have seen many frivolous cases at the Rue d'Ulm. Pasteur was right to treat them seriously, since rabies on the brain may and often does cause death. The whole family of an eminent London surgeon went through a course of inoculations because they had been licked on the hands and face by a dog of which

ugly suspicions were entertained. They comprised a grown-up young lady, two young men and their wives, and a couple of misses in their early teens. I could not help hoping, when I saw them, that the starchy-looking stuff which Dr. Granacher injected into their flesh was of the bread-pill nature. A poor woman, the wife of a steward near Nancy, had at the same time to undergo inoculations so as to shelter her employer, whose dog had bitten her, for perhaps the twentieth time in three or four years, from a civil action for damages if she died in her then expected confinement. She did not want to go to M. Pasteur, because she said the dog was killed by order of a Republican mayor and on the report of a Radical veterinary, for the simple reason that its owner was a Royalist, and that the rural letter-carrier was afraid of a brute of pure mastiff breed and surly temper. The mayor at the execution told the steward in the Royalist squire's presence that if his wife died he should sue for damages. She was therefore packed off under the charge of the domestic chaplain to the Rue d'Ulm, from Lorraine, and gave birth at the Hôtel de Brésil before her treatment was over to a child which just lived long enough to be christened. I heard her story from herself.

The first set of Bradford patients only set out for Paris a week after the death from rabies of one Ashworth who was bitten on the same day. I heard Pasteur laugh at the nervous fears which impelled a man named Garvey, who was in the same boat that they were, to join them three days later. Garvey, an Irishman, complained of a creeping and tingling sensation, as if his bitten leg were asleep. The muscles of his side and neck got gradually a tingling, and then the sensation was experienced at the back of the ear. Pasteur, behind Garvey's back, said this was all the effect of imagination. A tailor named Gibson "lost all appetite and fell a-trembling" the moment he heard of Ashworth's death. He was cured of these symptoms on the first day of treatment. This shows that then at least it acted entirely on his fancy. All the Bradford children should have died before Ashworth, because the incubation of virus is faster in a child than in an adult. They would probably be still alive had they not gone to the Rue d'Ulm.

I rob Pasteur of none of his true glory in contending that he is not after Jenner the discoverer of virus culture, out of which he has been making merchandise

since the collapse of the empire. But nobody else has pushed it so far, or showed so much ingenuity in experimenting on the nature of animal viruses. The taming of virus was first resorted to in Paris as a source of income by a doctor who, to protect children against diseases peculiar to human beings, resorted to calf instead of arm-to-arm vaccination. He, maintaining that Jennerian lymph was worn out, went back to the original variolic source, and had his heifers inoculated from patients in the Saint-Antoine hospital. They were kept from 1864 to 1874 in a stable close to Notre-Dame, and the litter on which they lay was cleared from under them to be cast into the streets until dust-carts removed it. Might not this alone have caused the small-pox plague in Paris which culminated in 1870?

Admitting that tamed virus has greater velocity of penetration into the nervous system, and can therefore steal a march on wild virus, may we not be justified in assuming that Pasteur's method is not the final effort of science to deliver the world from rabies? In its general scope and drift, and indeed always unless when perverted by human selfishness, science is beneficent. When twisted into evil uses it defeats the ends in the long run of those who make it deviate from beneficence. Now, Pasteur holds that to have vaccines always ready to hand, of the requisite degrees of activity, there must be a constant trepanning of the animals whose living brains he wants for a virus garden. The trepanned and inoculated rabbit soon gets numb and paralyzed. The guinea pig becomes exasperated by its torture, and wants to bite every one and every thing near it. In the case of the dog, mental anguish is the first symptom. The poor brute appears conscious that it must soon be dangerous, and as if wanting to beg pardon beforehand. Its efforts to propitiate indulgence for the state which it feels is coming on, are heartrending to any one who has any healthy sensibility. Veterinaries assure me that natural rabies, or rabies caused by bites, is mild compared to rabies induced through virus being let in on the brain, and I believe them, since I saw how quietly some of the wolf bitten Russians died. The delirious period is fraught with mental and physical torture to the trepanned dog, and it is only when things come to the worst, by the collapse of the nervous system, that there is a lull which precedes death. To assume that a prophylaxy based on such cruelty will be a permanent one is to doubt of the divine

nature of science, and to be blind to all the teachings of our own individual experiences and of that afforded in the lives of nations. Even though we were sure that Pasteur's inoculations would lay rabies, it would be our duty to ourselves and to science to regard them as a miserable jury-mast and to seek for something better. But in spite of his vaccines, splenic fever, poultry cholera, and rinderpest and foot and mouth disease continue to show nature's resentment at her outraged laws. The fact that only three dog-bitten persons who were treated at the Rue d'Ulm have died proves nothing. There is now a Pasteur mania, and human imagination is potent in domineering or developing rabies. Dr. Cunningham of Chicago has a great reputation there for the lightness of hand with which he cauterizes. He treats at least one hundred and twenty dog bitten patients yearly; the average of deaths in that number is three. It cannot be the cautery that saves them, as appears from the following experiment. Pasteur, to test the rapidity with which rabies penetrates into the blood, let the other day some into the tip of a dog's ear, which was at once amputated by an assistant standing by, yet in due time the animal went mad of hydrophobia. A cautery would not have been more rapid or effective than the use made in this instance of the knife, unless indeed virus got into the organism in some other way.

A serious danger underlies the run upon the laboratory of the Rue d'Ulm. It is compulsory inoculation for dogs. Such compulsion was mooted about a year ago by the opportunist section of the Paris press, and by M. Paul Bert in the lobby of the Chamber. He wanted to give the Van Amburg of the microbes the whilom imperial seat of Villeneuve l'Etang, near St. Cloud, for an experimenting place on dogs, and eventually for a central institute for obligatory canine inoculation. This scheme was actively put forward by M. Bert in a committee room of the Chamber in the presence of a deputy, who repeated to me what was said, and who set his face against the proposal, which he foresaw speculators would take up. There are four millions of dogs in France. The inoculation fee on each, if rated at a franc, would be four millions of francs. My friend argued he could prove from Pasteur that all the evil potency of a wild virus is latent in a tame one. Measles tamed by frequency of occurrence in old countries will decimate Red Indians and South Sea Islanders, to whose organiza-

tions they are new, and if taken from them by a European will act with intense virulence. The best preventive for rabies would be in the exclusion of dogs from cities, in carefully teaching them not to eat at waysides, and in keeping tainted meat out of their way. This view prevailed over M. Bert's, because the proprietors of villas near Villeneuve l'Etang got up a movement against the château being turned into a Pasteur Institute. It may be assumed that were rabies laid by inoculation, and dogs still kept in unhealthy conditions and allowed to feed on offal reeking with septic organisms, that nature would show resentment in some new disease as bad or worse than the known one.

It is too often assumed that Pasteur's professional studies have embraced physiology. The papers he has read at the Institute of France since last October reveal his want of physiological knowledge and it may be said indifference to logic. It is impossible to say whether the poison in the saliva of a rabid dog's tooth is chemical, as in a snake's, or septic, the microscope having only discovered "scarcely perceptible granulations in the spinal cord of the rabid dog, which may be only the effect of deterioration of nerve cells." But, whatever may be the nature of the virus, the infliction of a severe wound causing a strong outflow of blood would, it is rational to think, be safer than a trifling one followed by no hemorrhage. The mechanical action of the outflow ought to carry off poison. Well, in the report on the Meister case, Pasteur says, "The two medical men" (Alsatian country doctors) "who saw the boy opined that he was almost inevitably exposed to the disease, because of the severity and depth of the bites." In a surgical treatment depth of bite would be an important feature, but in treatment by inoculation which brings the antidote into the innermost tissues it could have been of no consequence. Of a child that died he says, "The bites being on the head its chances of recovery were greatly reduced." Now Doctor Beaumetz has strongly shown that locality of bites has no relation whatever to incubation.

I have already spoken of fear as a cause of simulated rabies, which I believe is not distinguishable from rabies, the kind of death the dog died being the only means of learning "which is which." Bosquillon, a great French scientist, holds that fear alone causes the symptoms which in man pass for rabies, he being refractory to that disease. The son of Rose Chéri the ac-

tress died of hydrophobia, that is to say of a cerebral affection causing tetanus and ultimately lung apoplexy, because bitten by a dog supposed to be mad, but which long survived him. Doctor Caffe says that imagination alone can cure rabies in a human being, because the disease is bred of fancy. In "Holme's Surgery" it is stated that a M. Zouatt treated four hundred dog-bitten persons with lunar caustic and himself four times after bites of unquestionably rabid dogs. In not a single case did the disease appear. Baron Larrey often saw precisely similar effects from cicatrized gunshot wounds that rabid dog wounds cause, and cured them by cauterizing the cicatrices, but he could not have done so had the patients been dog-bitten, because their imaginations would have defeated his efforts. Doctor Mosso, of Turin, reports a case of rabies, in dealing with which the physician said to the patient, "There is nothing the matter," and to prove his sincerity put his lips to hers, and imbibed the foam that came from them. The woman recovered. Six months later an acquaintance in the street said, "I'm agreeably surprised to see you; the dog, you know, that bit you is dead of rabies." A spasm took hold of the woman's throat. She was taken to the Hôtel-Dieu, placed under Dr. Bucquey, and expired in a few days. An American named Stephens, to test his theory that hydrophobia is fancy bred in man, never loses a chance of getting bitten by a mad dog. He has been wounded by canine teeth forty-seven times, and a German named Fischer, who is his disciple, nineteen times. As there is certainly such a disease as simulated rabies, I should advise some society for the diffusion of useful knowledge to scatter broadcast the small volume on "Le préjugé de la Rage," by Fangère Dubourg, and what was written on this subject by such lights of science as Bouley, Brechet, Tardieu, Majendie, Bondin, Vernois, Sausen, Renault, Donnat, Baron Portal, and Dupuy. If Pasteur's microscope had revealed anything new beyond the scarcely perceptible granulations I should regard these authorities as out of date, or at best use them merely to calm nervous terrors. But it has cleared up no mystery regarding the source of canine hydrophobia. However, the Rue d'Ulm inoculations have called attention in a striking manner to that disease, and it will be continuously studied, let us hope, at the future Pasteur Institute. Pasteur has, as a chemist, laid the world under many obligations. If the

noise his inoculations cause will lead to the creation of an institute or hospital, where rabies in dogs and human beings can be continuously studied, he will increase the debt which the human race owes him. The disease perhaps remains mysterious because, except in dogs, it is of such rare occurrence; deaths from rabies, real or simulated, are about three per million. Its canine manifestations are left to be treated by veterinaries, who are not in general men of scientific education.

G. M. CRAWFORD.

From Blackwood's Magazine.

THE MEDITATIONS OF A PARISH PRIEST.*

"Où donc l'originalité va-t-elle se nicher?" This perversion of Mirabeau's famous exclamation to the beggar who returned him the louis he had given him in mistake, is not unfrequently forced upon the thinking mind — in such unexpected nooks and corners will that rare quality take up its abode. The traveller who traverses the damp and dreary regions of the Bas Limousin — that inland district situated in the lower half of central France — would scarcely hope to find in the rustic *curé* a man of independent thought, a mind that thinks by itself and belongs to itself. To have this is to have a heavenly gift, but it is also to have a two-edged sword; it is to have a potency we would not be without, but whose possession, nevertheless, causes its owner to be marked as a being set apart from his fellows, one whose doom in life it is to walk alone in the cold upper regions of isolation. "It must be lonely on the heights," says that acute thinker Arthur Schopenhauer — and he is right; and such is the bond of solidarity that holds together the human race, that those to whom has been granted this power to see and apprehend beyond the heads of their fellow-mortals are rarely joyous under the boon. The Greeks well understood this when they created the fable of Cassandra. It is a burden too heavy for mankind to bear, this exclusion from the minor sympathies of life — minor, that is to say, in their nature and essence, but not in their consequence; for by their subtle sympathies are warmed the deepest springs of life — by their filaments, slender but strong, man is held in contact with his brother men.

* Pensées, par Joseph Roux. Paris, Lemerre : 1886.

The aim of every true high thinker, therefore, must be to carry his fellows along with him, so that, as his vision enlarges, theirs may widen too. But how if they will not or cannot listen? How if they will not or cannot comprehend? Ay! how indeed! Then there remains for us only infinite love or infinite bitterness, and blessed is he to whom it is given to follow the former path.

There comes to us just now a book from Paris bearing the trite title "*Pensées*," and for author's name a signature wholly unknown—that of Joseph Roux. We approached the work with that distrustful indifference which a new name arouses; we laid it down, after even the first cursory perusal, convinced that in this rustic curé we had once more come across that *rara avis* of humanity, an individual soul. Who would have dreamed that the philosophical communings of a Catholic priest should, in these days of wide and enlightened thought, be able to arouse the faintest interest outside the narrow community of faithful souls for whose benefit we might suppose they had been penned? Yet, once again, the strange is the true. These "Thoughts," not one of which the worthy priest's parishioners could either read or understand, have caused a perfect excitement of enthusiasm in France among thinkers the most various. M. Caro, the painter Puvis de Chavannes, Renan himself, nay, even the great priest hater, Francisque Sarcey—all with one accord have done homage to the little book whose richness of first-hand thoughts (*idées mères*, as the French call them in their happy idiom) have equally charmed and amazed them. They have not even hesitated to name their author in one breath with those great Frenchmen who have achieved immortality in that walk of literature which seems specially suited to the genius of the French. For is there another nation that can furnish such a catalogue of writers of *Pensées*—names that include those mighty ones of Pascal and La Bruyère, Chamfort and La Rochefoucauld, Vauvenargues and Joubert? The nature of the French mind, as well as the character of the language, lends itself to the composition of these condensed jewels of reflection—a form of writing which, to those who love it, is more thought-stimulating, more strengthening and suggestive, than pages of the long breathed essay-writing in which, on the contrary, the English genius seems to give itself best vent.

The author of these "*Pensées*," as we

have said, is an unknown man, a parish priest, and is no longer young. He had just touched his fiftieth year when his work was put forth to the world—put forth almost against his will, certainly without his aid. But for an accident, the Abbé Roux might have been numbered among the "mute inglorious Miltons" of whom the world perchance owns more than it wots. An accident made famous the man who, but for this, would probably have gone down to his grave unhonored and unknown.

Joseph Roux was born in 1834 at Tulle, the chief town of the modern department of Corrèze—a picturesque town situated in a deep valley at the confluence of the Corrèze and the Solane. It is a busy, industrial place, famed above all for its factory of firearms, and supports a large population of workmen. The present abbe's father was an artisan, and Joseph the last born of a large family. From his babyhood he was destined for the priesthood—his parents, like so many French and Italians of the lower class, deeming it a high honor to have one scion of the family who should be learned, and member of a learned profession. The priesthood, for obvious reasons, opens out the easiest method to gratify this ambition. His childhood, therefore, knew little of its laboring surroundings; he only imbibed from these a love and knowledge of the native *patois*, and an extensive acquaintance with the native legends and sayings. As early as might be, he was placed in a seminary, and underwent that curious training of the incipient Catholic priest which turns them out a species of men apart, with minds rigidly fixed into a deep-set groove, with methods of regarding life that cling fast, and survive even if their owner has learnt in after life wholly or partially to sever himself from their influence—which even sets its imprint upon their very physiognomy, so that a Catholic priest comes to have a face and expression that are entirely typical, and which can never be mistaken. Rome—that one-time mistress of the world, both in the material and the mental sense—has to this day not relaxed her empire over the thoughts and bodies of humanity, and never is this more impressed upon us than when we behold such a school of young seminarists. And who that has visited the Continent has not beheld them as they walk in double file solemnly and slowly in the gardens of the Luxembourg, or amid the ilexes of the Pincian, all life, all boyishness crushed out forever, the

young face already outlined in sacerdotal fashion?

Joseph Roux was an apt and easy pupil, so far at least as learning went; but his superior, Monseigneur Bertaud, the celebrated theologian, the friend of Veuillot, thought he perceived in the lad certain marks of mental independence, which caused him, with the judgment and wisdom that usually distinguish the Catholic dignitary, to announce to the youth when he was ready to leave the institution, that he might choose for himself which branch of the priestly profession he would desire to fill. Roux decided to be a teacher. But at the end of two years he was worn out by excess of zeal in the fulfilment of his duties; and his superior, who loved him and watched him with interest, counselled him to take for a time a country living, where he could recruit his health and study at his leisure those classical authors beloved of the artisan's son to the exclusion in those days of the writers in his native tongue. He was made curé of Varetz, a village poetic by its river site, its ruined castle, its remains of a Knight Templar's abode, as well as by its being the birthplace of Pierre d'Aubusson, grand master of the Knights of St. John of Jerusalem, the same who in 1480 successfully defended the Isle of Rhodes against the Turks. While holding this post, Roux began to write both in verse and prose, and devoted careful study to the language of his province. At Varetz the young priest was fairly happy; it was only by degrees that the mental and moral solitude in which he found himself grew to be oppressive almost beyond bearing. These were the years of making, of storm and stress, when, occupied with our own character, our own selves, we little need the outside world. In due course Varetz was exchanged for St. Silvain, a humble little parish near to the chief town of the department; and here the Abbé Roux was destined to pass twelve years, long years, years that were gradually to grow sadder and sadder as his need to impart himself increased in the same ratio as his mind grew and strengthened—in the same ratio as his character became less and less of the kind that could be comprehended by the rude unlettered peasants among whom his lot was cast. He dwelt among them patiently, but not willingly, doing his duty nobly, conscientiously, earnestly, growing more sombre and more sad, until he was removed again to St. Hilaire le Peyrou, a large Correzien borough yet more remote from all civilization

— a country desolation where he suffers in solitude to this hour.

To those makers of idyls, who are usually without exception dwellers in towns, Roux replies beforehand ere they can launch at him their unreal expressions of envy at his country abode. He is a country dweller by necessity, not by choice:—

A sojourn in the country [he writes] greatly pleases the town folk,— a brief and rare sojourn, that is to say, in the fine season, when all is verdure, flowers, fruits, songs of birds, chants of haymakers, reapers, and vine-gatherers; when the days are long, fair, and generous, the nights warm and serene, the paths scented; when life superabounds in and around us; when Nature receives like a hospitable queen. Then the citizens cry, "Dear, dear! how delightful the country is! how I should like to live in the country! how fortunate you are to live in the country!" The country is delightful, that is certain; you would like to live in it, that is possible; but whether it is good to live in it, that is a moot point. The country is not always flowery, nor melodious, nor gracious. After summer and autumn comes winter—that is to say, cold, withdrawal, silence, mourning. The trees are bald and scant; the holt-depopulated, sombre, and sullen; the roads filled with vile mud; the meadows seared, the fields bare, the sky lugubrious, the air inclement and hard. The only refuge is the fireside, the hearth,—scintillant with life, gaiety, and flames in the towns; wretched, monotonous, inert, and cold in the country.

As to the rain in the country, and its depressing, crushing effect upon the spirits, the abbé has penned a passage which only too faithfully reflects the prostration it causes. He then goes on to speak of a description by Washington Irving he has once read, in which a traveller is detained in a country inn by a storm of rain—a storm so marvellously described that at last the *ennui* of the gentleman becomes the *ennui* also of his reader:—

My *ennui* (in the rain) has neither recoil nor pleasure. I do not read of the *ennui* of another, I feel my own. It is less poetical. . . . There are those who go far afield to seek solitude and silence. I have found them, poor I, without so much trouble, and profounder, more enduring than I desired. I have not yet lived, I have not yet acted; the little I have been able to undertake has always exploded in my hand. Formerly, though unoccupied and against hope, I still hoped. . . . To-day, older by ten years, I hope no more. . . . No past, no future. A man is held on to society (as an unborn child to his mother) by the umbilical cord, by the stomach. Oh this stomach, that

hinders me from departing for the land of my thoughts ! I have always desired to live intellectually, ideally, divinely, and I have never done aught but languish and vegetate. The depths of the country, the depths of a province, the last of men in the last of lands ! I do not wish, in speaking thus, to despise my dear Limousin, nor to despise myself, man, Christian, and priest. But see — where am I ? and what am I ? A nothing in nothing. Many console me. Lamentable consolation ! Thus we console and amuse a dying man in trying to persuade him of that which we do not believe ourselves.

Why, it is natural to ask, does this gifted man seem destined by his superiors to fret away his life, to waste his talents in sterile rustication ? Why has his Church, generally so quick and eager to recognize talent, condemned this, her not unworthy son, to exile and mental ostracism ? Who shall penetrate the secret motives of that Church, as astute as she is motherly ? Perchance she knew, by that sure instinct which never misleads, that here was a son who might easily grow refractory were he put into the centres of civilization — were he brought into contact with the new ideas, the wider, larger, truer knowledge which our fortunate century has bestowed upon mankind. His superiors did not understand the Abbé Roux. It is recorded at the bishopric of Tulle that Monseigneur Bertaud, in one of the many familiar conversations he held with the young vicar of Varetz, once said to him : " Go, my son — I know you well ; you are like all men of genius — you have great faults and great qualities." Yet they condemned him to isolation.

From the time that Joseph Roux left the seminary of Brive in 1860 to this hour, only twice has the humble course of his priest's life been diversified — has he been permitted to get a glimpse of that large outside world whose nature he has apprehended so well by intuition and by the aid of literature. Once he held a tutorship lasting six months in a noble family of Normandy, where on his way he caught a peep of Paris ; and the second time was his visit to that city last year, to reap the first-fruits of the fame which has come to him so suddenly and unexpectedly. All the rest is solitude, solitude and almost silence, that bitterest, hardest solitude of all, which may find us alone in the midst of men, — a solitude worse, far worse, than real loneliness. As he himself has said : —

Solitude vivifies ; it is isolation that kills ; for those who are called to bear it, live among

men as one who speaks not their language and is not understood. Woe unto him that utters the language of the land of ideas in a country where that language is a dead letter ! Though he seem to speak in the same tongue as those about him, yet he had better give expression to his thoughts in some strange jargon ; he will not be less followed, more misapprehended. Woe yet more if he who should speak thus finds himself a priest, a teacher of men, who above all should enunciate language the clearest, the surest to penetrate to the ears of his fellows !

This double task has been laid on the shoulders of the Abbé Roux ; and earnestly and well, if not joyously, does he fulfil his obligations. The peasants, the pretentious, deeply ignorant *bourgeoisie*, that make up his parishioners, are never made to feel the deep abyss that yawns between them and the man who faithfully, in the best spirit of his creed, ministers to their moral wants, who is ready to obey every call of priestly duty. On the other hand, they know naught of the real man — the man who discloses himself when he puts off the priest, and shutting the door behind him and the world, enters his modest presbytery and lives among the books, the thoughts, the manuscripts, that for him make up the world. Small wonder, though, if this man be sad ; small wonder if a shadow of bitterness, almost of misanthropy, enfolds his mental sphere ; small wonder if his proud, defiant philosophy reads like a continual cry of anguish, so that he has been nicknamed the Abbé Schopenhauer, — a nickname whose force he could not even comprehend when it was repeated to him, excusing himself naively for this ignorance with the remark, " Novelties penetrate so late into the Bas Limousin." The comparison, like most of such analogies, is rather cheap than just ; the difference between the two men, which it would lead us too far to analyze, is deep and fundamental. To indicate its nature, it is enough to point out that the one is a Catholic priest — true Catholic, true priest, for all his breadth of thought, his powers of large apprehension ; and that the other is a free-thinker, a philosophical Buddhist, nurtured upon all the best thought of the East and West.

It was while at St. Salvain that the Abbé Roux began to write for his own delectation and mental relief some of the " Pensées " that are now before us, and also the first portion of his " Chanson Limousine," a suite of historic frescoes, a species of Limousin " Légende des Siècles," which he indited in the language of

Bertrand de Born and Bernard de Ventadour—the native idiom he will on no account suffer to be called a *patois*—the language in which he addresses his parishioners, in which he thinks and preaches.

It was the centenary of Petrarch, held in 1874, that first called Roux into notice—a festival celebrated in southern France by the Félibres, that society for the promotion and revival of Provençal poetry of which Mistral is the outcome, and to the present time the chief glory. M. Paul Marieton, himself a young Félibre, a poet in French and Provençal, made the acquaintance of the Abbé Roux; and struck with his work in dialect, sought to gain closer intimacy with the author. He unearthed him one day in his retired nest. "He appeared to me," says Marieton, "like one of the Limousin giants of his 'Geste de Charlemagne,' with his strong, square frame, his deep bass voice. His visage, large and tender, sweet and yet rough-hewn, resembled that of those English lords of Henry VIII.'s time—northern colossi painted by Holbein. With the gentleness of a child and a poet, he showed me the simplicity of his life, and I departed more moved than I can express." It was then that M. Marieton recognized that the priest's sadness was not pessimism, sprang from no intellectual malady—that, dejected though he himself may be, he is far from judging the world as evil *per se*. "Ah!" he cries, in one of his "Pensées," "if I could escape from the pneumatic machine that envelops me, how I would lift up my heart and my wings!" And as though to cut the ground from under the feet of future critics, he says, "No one more than myself loves what is good, beautiful, and true; no one more than myself desires to render or to know others happy." Indeed, how can he be a pessimist—he, the Christian and the priest, who must always see God behind all, not merely cruel, careless nature? Again and again he says to himself, when he finds his thoughts might carry him too far, "Be silent, philosopher; have resignation, priest." It was during this visit from the ardent young Félibre that the Abbé Roux diffidently confided to him a large number of copy books, written in a mighty, firm hand—a hand that would delight graphologists—in which were put down the milestones of thought, marking the way traversed by this lonely minister of God during his twenty five years of isolated life. Delighted, M. Marieton at once proposed to publish a selection. At first the abbé demurred. "You would

publish my 'Pensées,'" he said. " Beware! I am not independent enough to seek calumny, for I am not an individual, but a legion; and the good Abbé Roux will bear the mountain of prejudice that weighs on the clergy of all times, and above all of this time. Prudence, my friend. You would have me think that I shall become a personage. I can scarcely hope it. I shall always be an immured. With a proud and timid character one never arrives at anything." But M. Marieton did not let himself be deterred, and to-day the world can decide whether he did well or not to drag forth this priest from his lonely obscurity.

In judging of the Abbé Roux's volume as a whole, it is needful ever to bear in mind that this is not an artificially made book of maxims, such as issue forth in too great numbers from the French press, where the writers put down concisely page by page the piquant observations they have made in the world or the good things they have heard in society. The Abbé Roux is no little La Rochefoucauld of the drawing rooms. A very different inspiration is felt here; there breathes the air of a higher, truer origin. These pages may rather be regarded as the fragments of some great work never written owing to adverse circumstances, as the revenge of a repressed destiny or individuality. Each "Pensée" bears the impress of a personal emotion; in these thoughts of the Abbé Roux, that "I," so hateful according to Pascal, is almost always present. And naturally so, for these thoughts were penned for himself, not for the world.

To put forth "Pensées," [he writes in a species of autobiographical introduction] this is my consolation, my delight, my aim. I, too, can say to myself, though in a different sense, "I think, hence I am." . . . It is a difficult, delicate enterprise to write "Pensées." What a careful spirit, what fruitful imagination, what a just and profound perception of things, what a happy style it needs even to be mediocre! Why have I taken on my shoulders this burden? What necessity drove me to this task? Alas! the intelligence of man is a mystery, and, like the plants, each of us appropriates and assimilates naturally that which corresponds to what is within him from that which is without. "It is a melancholy humor, produced by the sadness of solitude, which first put into my head the idea of meddling with writing. And after finding myself entirely emptied out and void of other matter, I presented myself to myself as an argument and a theme." These reasons, given by Montaigne, are also mine, with the difference of his marvellous mind, his high position, his great knowl-

edge, and his rare experience. This "sadness of solitude," which he knew only in one part of his life, has been my close companion since my youth.

Probably quite unconsciously, but with the sort of sly satire that peeps forth now and again in his writings, Roux foresees of what nature will be the judgments passed on his work. He writes: "By habit the critic of a poet inclines to praise; it is a matter of showing that he has taste; the critic of a moralist inclines to blame; it is a matter of showing that he has judgment."

Roux's book has been classified by its editor into ten sections: Literature and the poets; eloquence and orators; history and historians; mind, talent, and character; joy, pain, and fortune; time, life, death, and the future; the family, childhood, and old age; the country and the peasants; love, friendship, and friends; and God and religion. Of these the first and third sections are the weakest, the eighth the most remarkable and original of all. That his literary judgments should be the feeblest, is due no doubt to Roux's sacerdotal and hence limited education, and the autodidactic nature of his later studies uncorrected by intercourse with educated persons; for by temperament he has an essentially literary mind, which his love for the Latin language alone would prove. "Oh the splendid language, how I love it! I learned Latin at college with as much heart as though it had been the speech of my father and mother. I do not hold it in my memory, I have it in my entrails. I long thought in Latin in order to speak in French. My prose and my verse are full of Latinisms. Premeditated? No; come there by grace." In these words do we not read the confession of a true humanist, such as the sixteenth century might have called forth? It was through Latin that Roux imbibed his first ideas, was ushered into the intellectual life; and its impress is certainly found in his style—concise, compact, consolidated, and thick-set—Latin in its primal origin, strewn though it is with Limousinisms. But if his literary judgments are at times paradoxical; if he is rather a moralist and a poet, a man of fine perceptions and ethical intuitions, than a cold, analytical critic; if, like all untutored men, he does occasionally put forth the old as new; if he does now and again show want of discernment, or a clerical narrowness of comprehension,—he redeems it a few sentences ahead by a *naïveté*, a freshness of standpoint, that

recalls most favorably the fact that here we are in contact with an independent mind that has not suffered for good or evil from contact with man and criticism.

But let us allow the Abbé Roux to speak for himself. We will proceed to quote from the section we have pronounced the weakest — whence our readers may judge how good the strongest. We must add, in fairness to our author, that he naturally loses much in translation — all the more, that he chooses his words with great care, not only for their exact shade of meaning but for their euphony: —

The real gives the exact; the ideal adds the true. The realist only produces things; the idealist invents beings.

I should define poetry as the exquisite expression of exquisite impressions.

The artist, body and soul, should beware of a mere ideal—that is to say, of a soul not joined to body; and of a mere real—that is to say, of a body not joined to a soul.

Great souls are harmonious.

Most excellent is the following; and it seems almost a miracle how one living away from the world of art could have so apprehended its momentary dangers, so truly formulated its perverse tendencies. It shows what strength lies in classicism duly understood.

Ancient art clothed the human body with chastity and majesty; modern art unclothes even the nude. It is an unchaste, sometimes an impudent art. Athens poured a soul over the body, Paris spreads a body over the soul. The Greek statue blushed, the French statue calls forth blushes.

Every one will fix by instinct on the books which reply to the needs of his nature.

That he should hate Voltaire is natural to a priest. "Since Voltaire's time," he writes, "we grin — we do not laugh."

Never had writers less sensibility, or spoke of it more, than those of the eighteenth century.

Literature was once an art, and finance a business; now the positions are reversed.

The punishment of licentious writers is that all the world cannot read them, nor avow that they have done so.

That this parish priest conceived a great appreciation of the English authors, though he can only have read them in the inadequate French translations, the following extract will prove: —

Shakespeare: greater than history, as great as poetry, he alone would suffice for the literature of a nation.

Addison : Shakespeare is an ocean ; Addison an aquarium.

Milton : he sings ecstasy like Gabriel, hatred like Lucifer, love like Eve, and repentance like Adam.

Goldsmith : his "Vicar of Wakefield," translated by Charles Nodier, attaches itself to the memory as with nails of gold.

Walter Scott : history re-lives in his novels, so honest, so delicate, so true, whenever he can resist the temptation to blacken the monks.

Thomas Moore : what a perfume of patriotism sweeps across him, light and fresh as a breeze !

Byron : a proud, pure blood, bold and supple, impatient of restraint ; an enemy of the spur, indocile to the lashes of the whip, whom men think vicious, and who is merely capricious.

Even German writers have been perused. The following are the happiest among his judgments : —

Goethe : a German loving-cup engraved at Corinth.

Schiller : has put into drama history read in a dream.

Klopstock : a pall covered with silver tears. Wieland : has composed epics that are but ballads.

Bürger : has composed ballads that are epics.

To French writers he is not always so just, nor are his definitions so happy. We quote a few of the most successful : —

Beaumarchais : a tranquil autumn day, when the fall of some dry leaf strikes here and there with a sinister sound.

Voltaire : the mind of a courtier, and the heart of a courtesan.

George Sand : like Circe, she changes all her lovers into beasts.

It is natural that the theme of eloquence and orators should attract one whose profession obliges him to be a speaker. What manner of preacher he himself is does not appear ; but when in Paris last year, he confessed that his ambition would have been to see himself a monk — a Dominican, for example. "A religious corporation should have sustained my old carcass, then I should have been an orator." And excusing himself for his assurance, and for the homely image he was about to apply, he added, "One learns to preach as dogs to bark." The image is, after all, not so shocking. Has not Jean Paul said, "A theologian is like a dog who looks at the sky before he begins to bark ?"

The speaker is made, the orator is born.

Exact stenography harms a discourse as photography harms a face. In order that face and discourse should seem beautiful on canvas and parchment, they must be touched up.

Lengthiness of speech, languor of listening. Judith before presenting herself to Holofernes put on her richest robes, her bracelets, her earrings, her necklets, her rings, her bands of purple, her golden pins. And besides all this, God clad her in splendor. Thus an orator adorns himself with sentiments, poetry, images ; all good things no doubt, but impotent without the Beautiful, that splendor of the True.

From the section on history, it seems only worth while quoting one of those autobiographic sighs that we encounter in the most unexpected places in this volume : —

The Emperor Augustus, placed at table between asthmatic Virgil and blear-eyed Horace, said, laughing, "I am between sighs and tears." Alas ! who is not seated between sighs and tears at the banquet of life ?

In the next sections we gain many such autobiographic insights ; we also find the writer at his subtlest and strongest. As is natural to the priest, the moralist is ever present ; but, unlike the priest, he does not merely skim the surface — he is a philosopher who endeavors to get at the root of things. We select at haphazard an anthology of fine fancies from the next two sections, reserving to the last that whereon the Abbé Roux speaks καὶ ἐγοῦσαν : —

In the matter of praise we rather consult our appetite than our health.

However much sunshine there be in our intellect, there are always corners that remain in the shade.

What is experience ? A poor little cabin constructed with the fragments of that palace of gold and marble called our illusions.

Buried alive ! What precautions are not taken against this peril ! But there are souls buried alive, hearts buried alive, intellects buried alive, and who is disquieted for them ?

Do not have your head in your heart, nor your heart in your head.

Happy he who mortifies that bitter pleasure of crying out at all that hurts or presses him. He will be at peace with others and himself.

Our experience is rather composed of lost illusions than of acquired wisdom.

Air good for the body to breathe does not extend very high, say the physiists. Respirable air for the soul here below abounds still less.

Who suffers most, — the capable man who is kept down and should be on high, or the mediocrity who is on high and should be below ?

Our sentiments, our thoughts, our words, lose their rectitude in entering certain minds,

as sticks become distorted when plunged into water.

Very few men are capable of judging. "Public opinion" is often nothing but the opinion of one accepted for all.

Trees with tall crowns have less shade at their feet.

Too many social and literary conventions hinder us from being *ourselves*, either as citizens or as writers.

The folly we should have committed is that which we pardon the least readily in others.

The man of talent, born poor, cannot take care of himself, not wait, not place himself when and where he would. Daily bread solicits him first, and binds him from the beginning. He can only live according to the spirit at odd moments in hiding or compromising himself. Having neither liberty, nor independence, nor facilities, nor consideration, he runs a sad risk that if at last he should arrive, he arrives damaged and aged.

Like to those statues which it is needful to make larger than life in order that, seen from below or afar, they may seem of natural size, so certain truths need to be exaggerated in order that the public may gain a just idea of them.

Press anything, and a sigh will come forth.

To live, to over-live, to re-live, is the whole of man.

To love is to select.

Reason, habitual inspiration, secondary ; inspiration, superior reason, intermittent.

Friends are rare, for the same good reason that men are not common.

What is love? two souls and one body. Friendship? two bodies and one soul.

Not careless enough to have comrades, not credulous enough to have friends.

Love is nearly everything in novels; it is nearly nothing in life.

We have said that the eighth section of this book is its strongest point. It is this section that treats of the country and the peasants — themes the Abbé Roux has had opportunities only too ample of studying *au fond*. Sarcey, that acute French critic, having read this portion of the work, has recorded it as his opinion that never has the peasant been painted more profoundly, limned with strokes at once more energetic and sober. It is truly possible to name the writer the La Bruyère of the peasant. He has stigmatized them in their egotism, their narrow-heartedness, as with a red-hot iron; he has put plainly forward the error of their nature; he has shown their brute relationship with the soil. Contrary to the pictures painted by George Sand, he demonstrates the French peasant as the

least romantic, the least ideal of men. These pages are pitiless in their unflinching veracity, which is almost summed up in the phrase, "I should love the peasant if he did not disgust me." A more remarkable physiology of the French hind has probably never been written. It must, however, not be applied too generally. The people of the Bas Limousin, among whom this priest is thrown, are a rude, coarse, heavy-natured population, with a vulgarity common to the peasants of the midland departments of France, but which is by no means the attribute of all the nation. For example, they cannot be compared with the mercurial, poetical southerners, who are as gay as the sun above their heads. The abbé's observations have been guided by the people among whom they were formulated. This is a guarantee of their truth, but, like most truths, it must be accepted relatively. There is no question but that the pastor of this people evinces a singular bitterness against them. We must, however, bear in mind that enforced companionship with inferior souls has been the bane of his existence; and he therefore feels towards them that particular and peculiar bitterness we are all apt to evince towards the daily recurring trials of our life. The colors are laid on black and heavily, there is no denying; but who of us shall say they are not true? Surely the man who has studied these specimens of humanity many a long weary year, should know them best. It strikes us, perhaps, as more curious because these judgments proceed from a priest, a Christian — from a man who is monitor, spiritual director, and confessor to this folk. But when all is said — when we have read the chapter with due care — we shall find it is not entirely damning; there is a counterfoil of deep pity, of comprehending sympathy, which must be balanced against these hard *dicta*, if we would arrive at a just conclusion. "What is a peasant?" asks our abbé; and he replies, "An unformed man." "The peasant," continues this implacable observer, "loves no one, and nothing, except to use it. If you do him good, he will not love you; if you do him harm, he will at least fear you — for how can one know of whom one may have need?" This is his whole preoccupation, his sole motor power. He is the most sober of creatures at home, the least sober abroad. He deprives himself less to enjoy, than he enjoys depriving himself. As to paying, he does this as grudgingly as the soil he cultivates. He lies by nature and by caution; he ignores the art

of telling his thoughts directly and clearly ; the truth of any of his statements is not obtained from what he says, but from what his auditor must guess. As for poetry, as for all the romance that has been wrapped around him, from the days of Theocritus and Virgil down to those of George Sand, in the opinion of the Abbé Roux, — an opinion probably very true, — all this is romance — romance, and nothing more. He defines the peasant as the least poetic of mortals : —

Observe him [he says] on this fine summer's evening, when all is joy and light and song, gaiety, prayer, and transport. Where is your man? He is down below sleeping heavily, unable to do aught else after the bad wine he has drunk. The romance-writers amuse themselves at our expense when they tell us that the peasant sings the beauties of nature, faithful love, spring, flowers, and fruits; he shouts forth oaths, he howls forth horrible tipsy songs, and that is the plain truth.

"A peasant is only so far like a man as a block of marble is like a statue," he says elsewhere; and again he compares them to little children, for, like them, they seek to put everything into their mouths. Without his beast of burden, however, the peasant is incomplete : —

Take away his cow, his ox, his ass, and you despoil him. . . . Those who upbraid Pierre Dupont for his famous refrain, —

J'aime Jeanne ma femme ; eh bien ! j'aimerais mieux La voir mourir que voir mourir mes bœufs,
do not stop to consider that a wife costs nothing, and that oxen cost dear; that a peasant can live and work without a wife, but not without his oxen. Thus Napoleon the Great counted the loss of a horse as greater than that of a man.

Besides his home, the peasant has a second, where he is no less at ease than in the first, and this is the market-place. There he ceases to be a man, a Christian. He becomes like a spider in the centre of his web. *A la guerre comme à la guerre.* At the fair as at the fair. The voice neither of blood nor of friendship, nor of respect nor of honor, has weight with him; he is resolved to sell as dear and quickly as possible, to cheat even his neighbor, even his father and mother. "To have consideration (*ménager*)? For whom? For that honest man? But an honest man is inoffensive. For that wicked man? Oh yes; he might harm me." Thus reasons the peasant. Sell, no matter to whom, no matter what, no matter how; this is the sum total of his diplomacy. He sells, he lends, he exchanges, he pays, but he never gives. A

subtle trait of manners lies in the remark, "He gives his arm to his wife on the day of their marriage for the first and last time."

It is clearly evident from the Abbé Roux's descriptions, that notwithstanding all that has been said concerning the amelioration of the peasant's lot since the Revolution, matters have not mended much, at least not in certain districts, among which must be numbered the Basse Bretagne and the Bas Limousin. Our abbé feels assured that if another La Bruyère, another Madame de Sévigné, could see all the squalor and misery witnessed by him, they would raise the same cry of horror and pity that was raised two centuries ago. In part this is the fault of the men themselves, but in part also of their circumstances; and who shall say where action and reaction begin and end? The following fancy dialogue given by the priest is instructive : —

The Hygienist. "Air as well as bread is the first necessity. Let us have air, have windows, my good man."

"Yes, sir."

The Tax-gatherer. "So many windows, so many taxes to pay."

"Yes, sir."

After which, boarding up three of his four windows, the peasant says with a sigh, "No more air for me, no more light, no more health, no joy except outside under the great vault of the good God."

Surely here is one of the traits of sympathy that atone for many of the hard words launched by the priest. We will quote at random a few more of these axioms, which contain deep truths even if at times their coloring is highly charged : —

The people of Tulle call our peasants *peccata*. This nickname encloses an admirable definition. The peasant is truly sin, original sin, still persistent and visible in all its ugly *naïveté*, in all its *naïve* ugliness.

Every peasant who learns to read and write renounces the country in his heart.

A philosopher defined man as a religious animal. Why am I not a philosopher? I should define the peasant as a superstitious animal.

"Scratch the Russian," said Napoleon, "and the Tartar reappears." And you, men of obligatory education, polish, varnish the peasant as you will, the *peccata* will always survive; and it is well that it is so, since you need to eat bread.

The peasant loves the town, and detests the citizen; the citizen loves the country, and detests the peasant.

The peasant is less slow to fetch the veterinary surgeon for his animals than the doctor for himself. When the doctor is called, the invalid is indeed very bad. Fifteen francs for a visit, that in itself is an illness, and "an illness upon an illness does not make wealth."

But even the Abbé Roux has to admit that there is a better side to this poor specimen of humanity. "If one searches well into the very depths of the peasant," he says, "one ends by finding a certain superior sense, which we can but explain with difficulty, but which it is just to note." And as a proof, he gives a touching little tale that shows the deep-down sense of unconscious poetry that resides in the countryman, that is indeed in part an offspring of his superstitious nature, whence has arisen all the folk-lore, the songs of the soil, the *naïve* expressions our over-cultured age values so highly. This is the tale much shortened—a tale, no doubt, studied from the life. A young peasant has lost his adored wife, and fancies, by a sweet madness of love, that he recognizes her among the lovely stars of the firmament:—

"This star, does it recognize in its turn?"

"Yes, without doubt. Else why this long gaze, so obstinately fixed on him, this profound, calm, pure look, tender at times?" And he passes his nights in loving contemplation. One day I met him returning from his vineyard. Seeing me, he smiled; I see it still, that strange smile.

"Well?" I said, desiring to speak to him, but not knowing what to say. He also replied,—

"Well?" Then, "I have seen her again. They say she is dead, that she is under the earth. Nonsense! She is above, she is alive. I have asked her to come down. She wishes it too. Can she? Poor thing! In truth, matters cannot go on like this; we must come together again, she to me or I to her, forever."

Is not this tender poetry?

That there is no real divorce between the soul of this priest and his peasant flock is proved by a lovely passage, one of the most lovely in the book, which is quite a poem of reconciliation. It is put into form of strophe and antistrophe:—

O peasant, thou cultivatest the fields, thou fertilizest them and sowest them; thou makest the corn to sprout from the earth; by thee the arid is changed into wheat; thou nourishest man, who is flesh. Thou buriest a dead and cold seed, which anon revives, and flowers, and fructifies. . . . Glory to thee, peasant!

O priest, thou workest with souls; . . . thou nourishest man, who is soul. . . . Thou buriest a body weary of life; but this body, returned to its soul, shall rise one day, and that day will

be long, like to eternity. O priest, glory to thee!

The peasant and the priest are thus approached in a work that has a common symbol, and the common brotherhood between them that seemed strained is re-established.

That in the section devoted to God and religion not only the minister of the Most High, but the Catholic priest, is prominent and dominant, will at once be assumed. Frequent ignorance, distortion of facts, and narrowness of knowledge meet us here; but even here we can cull some subtle thoughts, some fine expressions. We give a few samples:—

In the presence of God we talk too much; we do not listen enough. Let the Master speak. It is but just; it will prove profitable. In very truth He knows whereof we have need, and we know not that which He knows.

Christian, philanthropist, humanitarian. . . . Humanitarian, philanthropist, Christian.

If the Son of Mary was but a great philosopher, how comes it, O freethinkers, that you love His philosophy so little and practise it so ill?

A poplar leaf can hide the sun from our sight; the slenderest terrestrial care hides God's shining immensity.

God often calls on us, but generally we are not at home.

Such are a few of the thoughts of this lonely man—lonely from circumstances, not from choice. It must indeed have needed great moral force to resist sinking under the dead weight of soullessness with which he has been so many years surrounded, to keep his mind healthy and rightly balanced in such wretched physical and social incarceration. Beyond question the temptation towards discouragement must have been hard for the intellectual morality of this lonely thinker, and the study of a soul that meets us in these pages but enhances their fascination. We witness a great moral combat; we are also happily present at the victorious issue. Here is his own picture of his triumph. It seems his friends nicknamed him Pervicax—the obstinate. He introduces us to this Pervicax, who, since thirty years, studies, observes, writes for no purpose. Except two or three, who suspect his value and are silent, no one takes Pervicax seriously.

"If he had merit," they say, "the masters would salute him before the face of all." Suddenly a homage comes to Pervicax from afar and above; he is sought out amid his isolation. "Really what a surprise! Well, the

man has talent, let us admit it." And from to-day to to-morrow Pervicax becomes a prophet—a prophet in his own country. He is surrounded, admired, commended; they praise a pamphlet which appeared some fifteen years ago in midst of universal indifference; they exhume some college thesis in which they protest his talent already showed itself; his last work is laid on the table well in sight, with the paper-knife between the leaves. . . . The time has gone by for shrugging of shoulders, for sneering looks, for pitying smiles; all has changed aspect, and with the stones that they used to throw at him they are now anxious to build up a pedestal for the statue that is being prepared.

This passage, for all its evident pleasure at receiving at last the recognition that is his due, shows also in its satire how truly the Abbé Roux gauges men and mankind.

The comparison between the thoughts of Roux and those of another solitary, who, it is true, never "arrived" until after his death, is so likely to be made at the present moment when readers are occupied with Amiel's "Journal Intime," that a few words about the two men may not be out of place, the more that their work and life have already been confronted. There is this analogy between them, that both were led by loneliness to cultivate a perhaps excessive development of their inner life; both were inclined by isolation towards that intense self-analysis which is natural to lonely men of subjective nature. But here the analogy ends; for Amiel was a dreamer rather than a recluse; he lived near to society, and could have the world with him when he willed, as he often did. Roux is a solitary by necessity, not by choice. He is further isolated from his fellow-men by the site of his home, as well as isolated from his mental peers by his profession. Roux lives in an intellectual desert; in Geneva, Amiel could have his choice of friends. If both are sad, again there is a difference. Amiel might be called a *virtuoso* of melancholy. Not so Roux. He is too ingenuous; there is no design, no posing, no self-consciousness about this priest. His outpourings are genuinely pained for relief from the loneliness that, but for this safety-valve, would madden him or drag him down. They are neither brothers in misfortune nor brothers in soul. It is curious to understand why people so love to raise these analogies, to make these classifications. May no soul stand alone on its own merits or demerits?

Roux, middle-aged though he be, has, as he himself says and knows, not yet

lived. Whether he may still develop, or whether a quarter of a century of loneliness has ossified his powers of adaptability, are points only the future can solve. Nor is it sufficient that his innermost thoughts have been given to the world, that France now knows that it numbers a thinker the more. Unless his Church release him, unless she place him in some more genial and fruitful environment, the Abbé Roux remains where he is, tied by his stomach, as he drastically expresses it, held down by the necessity for bare food, that makes him dependent on his cloth. He has not abandoned all hope. "If the good God would grant to me some day to quit the country, then the country, seen across my memory, across my regrets perchance, will have charms for me, like those faces of relatives that were severe to us, and that seem so sweet to contemplate when they are no more." In this passage Roux makes his peace beforehand with the country for any hard things he may have said or felt. Will he be allowed to escape from the modest hamlet hidden among undulating lands of chestnut woods, from the bald square church with its blank walls, devoid of any architectural pretensions save its square, half-detached belfry, that resembles almost an Italian campanile? Will the plain house, hidden in the quiet garden that invites to dreaming, will the rude balcony that runs along its upper frontage under the overhanging eaves, know no more the tall, massive frame of this priest? Who can say? As yet no word of promotion has been spoken. Listen how he consoles himself in a prose poem, which, as his editor remarks, Lamennais would not have disdained to own: —

Obscure seed, remain under the earth. Wherefore burst forth and flower? Thou dreamest of sunlight, of breezes, of dew. Alas! the sun burns, the breeze torments, the dew weighs and sullies. Trouble awaits thee in the daylight—trouble, not peace; and if some glory is promised thee, it will prove vain and brief. Remain under the earth, obscure seed.

I will be a flower. I must be a flower. Trial for trial, it is better to suffer in the light than in the shade. For I suffer here. Nor do I find it true that isolation is happiness. Night surrounds me, the earth presses on me, the worm insults me. Above all, desire eats out my life. I must be a flower. I will be a flower.

But, over and above all, above literary and artistic instincts, above desires, wishes, and hopes, there moves, thinks,

and feels the believer and the priest. We will end our essay with the last words of the volume, a species of abjuration, of pardon and prayer for sins of omission and commission, committed or omitted consciously and unconsciously:—

I declare to retract every passage in this book which remotely or approximately is in contradiction with religion and morality. No thought is avowable unless it is Catholic. All that did not belong to the Roman Empire was called Barbarian; all that is not attached to the Roman Church has Error for its name. A philosopher, as ingenious as he may think himself, and as he may be said to be, propagates darkness not light, scandal not peace, if he do not teach like Peter, with Peter.

This passage, which ends thus abruptly and remains fragmentary, is not the least remarkable utterance in this remarkable psychological study of a man, a thinker, and a priest. M. Claretie has said that every *pensee* must be somewhat like lightning, rapid and luminous; and the more it has of this rapidity, the more, contrary to the lightning, it will endure. The world must decide whether the Abbé Roux's thoughts have this electric quality. They lie in print before them to-day.

From Macmillan's Magazine.

A CHRISTENING IN KARPATROS.

I DO NOT suppose any one who reads this will have been to Karpathos; and perhaps not many will be able to say off-hand that it is one of the Sporades, lying between Crete and Rhodes. There is absolutely nothing to take an ordinary traveller or a merchant there, and the two seas on either side of this long, riband-shaped island are moreover, exceedingly dangerous. No steamers cross them, and rarely sailing-boats; consequently no happier hunting ground could exist for the study of unadulterated Greek peasant life. The island is certainly very lovely, being particularly rich in mountains covered with rare plants; in fact, the only European who had visited the villages before ourselves within the memory of the present generation was a German botanist. In parts it is densely wooded with low, straggling fir-trees, which on the slopes exposed to the north winds crawl along the ground with their stems as if supplicating the angry blast for mercy. The mountainous backbone of Karpathos is curiously knife-shaped, and as you travel from one end of the island to the other you go

along the summit of this backbone, with the sea on either side of you three thousand feet below, while behind you and before rises a surprising conglomeration of angular, many-colored peaks.

In these mountains there are villages, the inhabitants of which, and there are not nine thousand souls in the whole of Karpathos, are buried in the depths of ignorance. Amongst them we passed several months last winter, and many amusing incidents we witnessed during our stay.

We were lodged with the schoolmaster of Mesochorion in a one-roomed house, which was abandoned to our sole and separate use. One day, shortly after our arrival, we were made aware that a very near neighbor of ours had had a baby, by the sudden breaking upon us of unmistakable sounds of infantile distress. The schoolmaster was promptly summoned and questioned on the subject, and he promised without delay to obtain for us an introduction to the happy mother, that our desire to study the folk-lore of Greek babyhood might be satisfied.

Undoubtedly the schoolmaster might be termed "a superior man" in Karpathos, for he could both read and write. I should not like to answer for his possession of any further accomplishments, seeing that one day he asked us if we were acquainted with the great European traveller, Captain Hattaras. The name struck me as familiar, so I said we had often heard of him, but had not the pleasure of his acquaintance. "I have an account of his travels which I will lend you," said he, and that evening put us in possession of a Greek translation of Jules Verne's work, which our friend believed to contain nothing but the truth. Nevertheless he was a superior man, and a great assistance to us in collecting local beliefs. Furthermore, he bore the title of "deacon," which is given in Karpathos to all who can read or write, to distinguish them from the common herd. As a proof of the Karpathiotae conservatism in customs, it is only necessary to state that still they observe the first of September as New Year's day, washing out their houses, and wishing each other a happy new year on the day which the Byzantine calendar recognized as the first of the year.

Yet even here there are instances of civilization having crept in. The better class of the inhabitants are weary of the monotony of calling themselves John, the son of Nicholas, and Nicholas, the son of

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John, for alternate generations. We became acquainted with a person called Mr. Palamades Black Seagoer, who once had penetrated as far as Odessa; and our muleteer, Nicholas, proudly told us that he had inherited the surname of Hare from his father, who had been thus dubbed for the fleetness of foot he had displayed in the days of the revolution.

A few years ago in Karpathos the extent of a boy's education was to be able to read, after a parrot-like fashion, a page in the Greek prayer-book, beginning "Cross, help me;" after which they were hurried through the Psalter and the Apostles, and then sent out into the world to dig and to delve, and to forget the very form of letters. As a rare instance of ability, a boy was allowed to read in church the canons and the Apostles, and the proud parents on this occasion prepared a feast in honor of their son's success, and brought presents of fruit and bread to the erudite preceptor. This was the education of the generation now grown up, and it is a question if their successors will be more deeply learned.

The mother lay in state on her upper floor, when we visited her, for all Karpathiot houses are built after one fashion. Each consists of one long single room, which is divided into two parts down the middle. That nearest the entrance is paved usually with manure, and is used for receiving guests. The inner part is constructed like a stage; below are the storerooms, above are the beds, approached by steps. The walls are gay with plates and cups and household utensils, and in the homes of the better class there is much carving, which pleases the eye; quaint griffin heads and intricate labyrinthine patterns, testifying to the skill of the self-taught Karpathiot carpenters.

Never, as long as I live, shall I forget the shock I received on being introduced to the attendant physician. These villagers have no belief in the efficacy of drugs, and their only medical attendants are old women who can mutter incantations, and priests who can bind diseases to a tree, and exorcise the devil. They have not even any practical knowledge of the many herbs which cover their mountain-sides to help them in the combat with disease. At Mesochorion almost the only practitioner is a witch-like creature called Marigo, of whose sex no one seemed quite certain, for we heard our old school-friend the article ὁ, ἡ, τό, gone through in all its subtle variations when

addressing this individual, who for the sake of simplicity we will call "her."

Marigo had lost one leg long years ago, by the fall of a mast when at sea. She had supplied the missing member by what looked uncommonly like the stump of a tree. Assisted by this and by a crutch she was daily to be seen going her medical rounds within the precincts of the village; but if called to a distant hamlet, a mule had to be sent. She was always dressed in rags and tatters; her nose is Wellingtonian in shape, her hair clotted and straggling. She will tell you your fortune with a greasy pack of cards, and few of the inhabitants of Mesochorion get married or go on a voyage without consulting Marigo's soothsayings. She is seldom sober, for her medical fees are generally invested in *raki* or rum. Such is the physician of Mesochorion. I have seen her perform her incantations for fevers and headaches. I have seen her whilst muttering mystic words wave a sickle, the point of which had been dipped in honey, over the head of a dying man. I have seen her amongst the bones in the charnel-house looking for a skull to stick upon a post, which she thinks will attract the wind from the quarter from whence she wishes it to blow. But I think I never saw her look so repulsively awe-inspiring as when contrasted with the tiny speck of human life, at whose entrance into the world she had presided.

Primitive societies are not, as a rule, gallant in their reception of female babies; in fact, some Karpathiot parents are so very benighted as to consider the advent of a daughter as a distinct curse to their house. There is, however, an exception to this rule, made for the first daughter, for a first daughter succeeds to all her mother's property. Consequently they fire off guns on her appearance, to indicate that an heiress has been born into the world. The arrival of subsequent daughters is passed over in silence, whilst every son is greeted with a flourish.

Marigo was very busy as we went in, for the public washing of the infant was about to take place, and at such an occasion she always presides. A large wooden bowl was placed in the middle of a table, into which warm water was poured; a few lemon leaves were then dropped in, and the relatives who were near cast in salt and sugar. In this concoction Marigo washed her young charge, frequently calling it a little dragon as she did so, one of those pet names by which Greek children are known before their christening, and

which are thought to indicate its future strength. After this exertion she had to be supplied with a glass of raki, to prepare her for the mighty effort of saying the Kyrie Eleison forty times, which she did with remarkable velocity. It is done always on this occasion, as a thanksgiving to God for allowing another male child to be born into the world.

Before the priestly blessing, after the washing and swaddling has been done to Marigo's satisfaction, no one is allowed to come in or go out of the house; but as soon as Papa Manoulas has delivered this blessing the doors are thrown open, for now they say there is no fear of a nereid or uncanny hobgoblin seizing upon the child and making it waste away. Before our departure we were given glasses of raki and sweets, and we wished the mother a happy forty days; for, according to custom, for forty days after the birth the mother does not go to church. Before the birth the mother is very seldom seen abroad; this is not inculcated by any feelings of modesty, for they have none, but from the belief that if she should see an ugly person the child would be unsightly. On the same principle, the handsomest man ought to embrace the child first after birth, so as to impart to it a portion of his beauty; and the soberest and most moderate woman, that the child may grow up temperate in all its ways. At Mesochorion Marigo is always sent for secretly when the birth is imminent, for fear that at this critical moment an enemy may hear of it and curse the child. No one in the house, for the same reason, is allowed to utter a harsh word, for it would damage the infant.

Our schoolmaster told us much about the superstitions connected with births that evening. At sunset, for many days, the doors of the house are kept scrupulously closed to whomsoever may arrive. Even if it is the father who has returned from a long journey he has to seek repose elsewhere, for from sunset until cock-crow the demons of the air are roving about, and they may come in and hurt the child. The clothes of the child must not be exposed to the stars, and if by accident they have been, they must be fumigated with a censer; if this is omitted the child will have thrush. There is some sense in this in a climate where the atmosphere is so often impregnated with sea moisture.

St. Eleutherios is the protector of newborn babes, and is usually called upon by the mother in her distress, as anciently was the goddess Eileithyia; and when

summoned to the bedside of her patient Marigo always takes with her an olive branch, which is called, from its shape, "the virgin's hand," which the patient holds with a view to expediting the event.

But on the seventh day after birth there takes place the most interesting ceremony of all in Karpathos. It is usually performed the day before the christening, and is looked upon as of the greatest importance, for on this day the Fates are called upon to decide who is to be the child's patron saint. It was on the seventh day, Apollodorus tells us, that the Fates told the horologe of Meleager and the torch was lighted on the hearth. This ceremony of fate-telling is still, as in ancient days, called *ép̄ta*, and is an interesting thing to witness, so we were obliged to stay longer at Mesochorion than we originally intended; we never regretted the delay, as it gave us an opportunity of becoming better acquainted with a deliciously primitive and hospitably inclined people.

In those remote villages there are always one or more women, who once in their lives have left their native island. These are wonderfully overbearing, and during the daytime, when the men are absent in the fields, they maintain the importance of royalty. Mrs. Chrysanthemum was the ruling spirit in Mesochorion; she had once been with her husband to Alexandria, and looked upon us as her special property, being always at hand to conduct us in our walks, and to apologize for the ignorance of her fellows. "I know civilization," she would boast proudly, and her listeners would nod their heads in assent; "these people are animals, burnt people, no men at all;" and by their silence the other women would acknowledge the truth of Mrs. Chrysanthemum's

Perhaps our life was a little monotonous at Mesochorion; at all events the delicacies of our table were; for daily we discussed the boiled limbs of kid or lamb; we had no vegetables save onions. Our only real delight was boiled sheep's cream mixed with native honey, and now and then a pilaff of snails. Snails boiled in rice, with oil poured over them, and served up with hairpins, are a welcome luxury in these parts. Then we had numerous patients with every imaginable disease, who came to consult us, regardless of Marigo's sneers; and though we did not stay long enough to hear if our remedies were successful in the most interesting cases, yet I have my doubts if the vaseline we gave to

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lepers would ever do more than bring a ray of hope for a time to those stricken outcasts of society.

Last winter the inhabitants of Karpathos suffered a dire calamity, traces of which we saw in every village. An account of this disaster never appeared in the European papers; no subscription list was ever opened at the Mansion House on their behalf; yet I question if these islanders did not suffer more than others whose catastrophe has been better known. The island was visited by a cyclone of rain which never ceased for a fortnight; their houses were washed away; their vineyards were destroyed; their fields, which were built in terraces on the mountain slopes, subsided. Some of the villages represented the appearance of those in Chios after the earthquake, and the greatest distress prevails, for there is no government to lend a helping hand; their taxes have to be paid as usual, and they have nothing to assist them in their adversity save their habitual abstinence, which enables a Greek peasant to subsist on what to others would be sheer starvation. At Mesochorion they were busily engaged in repairing the damages when we were there; but they do not know how to guard against a recurrence of this catastrophe; their stone walls have only mud for cement; their roofs are of mud, and their floors of manure. The flat roof of one house serves as the courtyard and approach to another on a higher level, and it is of common occurrence for the family to be awakened at night by a stray mule which has got on to the roof, and whose leg has gone through the ceiling.

The seventh day arrived at last, and we were all in readiness for the fate-telling ceremony which was to be performed on behalf of baby Dragon. People in their best were seen hurrying to the mother's house carrying baskets of figs and other delicacies as a present for the "table" which would afterwards be laid.

Our friend Papa Manoulas, the chief priest, was there as a matter of course, in his long, blue greasy cassock and tall hat and straggling hair, which well regulated papas usually fasten up with hairpins, but which Papa Manoulas generally so contrived to tuck into his hat that it stood out behind like the handle of a teapot. He is a mason by trade, and just now, owing to the quantity of house repairing that is going on, he is driving an unusually good trade.

Marigo we saw hobbling along towards the house looking more tattered and witch-

like than ever; most of the relatives of the parents were directing their course thither, besides numerous guests, and amongst these ourselves.

In the middle of the floor was placed a thing which might easily have passed for a wooden pig-trough, but it really was a bowl into which the family put their boiled rice on feast days, and out of which they eat, squatted on the floor around, without the assistance of forks or spoons. To-day this bowl was to serve another purpose; it was carefully covered first of all with a suit of the father's clothes, for the child was a boy; if it had been a girl, one of the mother's rich embroidered dresses would have been used for this purpose. Then baby Dragon was brought from his cradle, which in these parts consists of a swing attached to the beams of the roof. He was tightly swaddled like a malefactor about to be hung, but these bandages Marigo proceeded to unloose, and placed him naked as he was born on a pile of his father's clothes on the bowl in the middle of the room. Around the bowl were placed seven jars; each jar contained honey, and into the honey were stuck seven candles. Now these candles form the chief factor in the ceremony of fate-telling. When a child is born a neighbor comes in to make "the candle," as it is called. She gets a very long wick, and around this she rolls seven coats of wax; this long candle she cuts into seven pieces, and they are ready for the ceremony.

When all the relatives and guests were seated around the naked body of baby Dragon, the seven candles were blessed by Papa Manoulas; one was to be the candle of St. Athanasius, another of St. Mammas, and so on; generally the patron saints of neighboring churches are chosen for the sake of convenience. When blessed the candles were lighted, and for the space of twenty minutes we all sat around in solemn silence, broken only by periodical cries from baby Dragon, and the groaning of some prayer. At length a candle went out — if I remember right it was the candle of St. Panteleimon. Thus the indication of the Fates was made plain; St. Panteleimon was to be the patron saint for life of the youthful Karpathiot. To this saint he would have to offer up his prayers when in danger; before his picture he would have to light his candle in church; on his day baby Dragon would have to entertain his friends. St. Panteleimon would act as his intercessor for favor with God for according to the

idea of the Greek Church no man can make his prayers direct to so sublime a being as the Creator of mankind; some mediation is necessary.

At this juncture the other candles were extinguished; the mother on one side and Marigo on the other held the swaddling-clothes over baby Dragon's head; one said as she did so, " You have crossed the river," and the other replied, " Therefore be not afraid." The baby was thereupon dressed again and restored to his swing; the honey was distributed amongst the guests, together with presents of figs and wheat, and as each went away he wished for the infant some great good fortune.

But the fate-telling ceremony was not over yet. That evening the bowl was again put in the middle of the room; in it they cast this time flour and water, which was stirred until it had assumed the consistency of dough; in the midst of this honey and butter were put, and the men and women squatted around to eat and talk. The last thing at night when all the guests had dispersed, old Marigo filled the bowl once more, put it again in the middle of the room, shut the door, and went round to sprinkle the walls with sacred oil; as she did so she said, " Come, Fate of Fates, come to bless this child; may he have ships, and mules, and diamonds; may he become a prince."

The bowl was left all night thus filled with food, that the Fates might partake thereof, and be willing in their consequent good humor richly to endow the child. This was the conclusion of the ceremony — a conclusion, said the schoolmaster, which puts much money into old Marigo's pocket, for they think no one can do it so well as she, and her charges are made accordingly. A year after birth they go through another fate-telling ceremony of a similar nature, only that this time a tray is set in the middle of the room, filled with various articles; the first of these that the baby touches is held to indicate the calling in life which the Fates wish him to pursue.

Eight days after birth baby Dragon was received into the bosom of the Orthodox Church, and we could not leave Mesochorion till the day after, for we wished to be present at the ceremony — and furthermore our Greek servant was to be godfather. Marigo on this occasion was again very busy, and Papa Manoulas too, who looked considerably more respectable in his robes of office than in his every-day garb. It interested us greatly to see our little friend Dragon immersed bodily in

warm water, and the ceremony of dancing round the font, as performed by the priest and god parents, made us think of the *amphidromia* of antiquity; but these things were not new to us — they happen in Karpathos, as they do elsewhere.

But when they took the child home, and presented him to his mother, we saw what we had never seen before — for the good woman met them on the threshold, and performed what they term the incense of the ploughshare; that is to say, she waved the family share with embers in it, after the fashion of the priests in church, in front of the child, supposing that thereby she would secure for her offspring strength like the iron of the share, and skill in agriculture such as former owners of the share had possessed. They do this also on the return of a bride and bridegroom from the church; and though the better-class Karpathiates, with Mrs. Chrysanthemum at their head, affect to scoff at this custom, nevertheless the poor adhere to it still, and will do for many a year.

The mother then received them into her house; as a mark of reverence to Papa Manoulas, who entered first, she touched the ground with her fingers, and then raised his hands to her lips to kiss. The god-parents came next, bearing the child, now known as Matthew, which name he received from our servant, his godfather. He, poor man, was not accustomed to this ceremony, and looked bewildered when called upon to give the words expected of the godfather on the delivery of the child; so Papa Manoulas stepped forward, and said them for him: " I deliver up to you the child, baptized, incensed, anointed — in fact, made a Christian;" and then, specially addressing the mother, he continued, " that you may protect it carefully from fire, precipices, and all evil; that you may deliver it up again to us at the second coming spotless and undefiled."

The grateful mother took her infant from Matthew's arms, and placed it in its swing, whilst the father handed us all once more sweets and raki to conclude the entertainment.

I should like to have been at Mesochorion forty days after the birth, the day on which the mother was again received into the church and into the houses of her neighbors — for it is not considered proper for a mother to visit in any house before the forty days have expired. But not even the pressing invitation of Marigo to enter ourselves as medical students under

her guidance could tempt us to remain. If we would stay, she promised, by ocular demonstration, to prove the superiority of her system to our own; nevertheless we contented ourselves with hearing what they were going to do on the fortieth day.

The mother and child first go to church with a jug of water; after the service is performed, and the water blessed, they visit their neighbors, and the mother sprinkles each house she visits with water out of the jug, saying, as she does so, "that your jugs may not break." As she crosses the threshold it is expected of her to put the handle of the door-key into her mouth, to make the plates as strong as the iron of the key, as the saying goes.

The perils that surround babyhood from the uncanny demons of the air are numerous at Mesochorion. Nereids love nothing better than to strike children with a mysterious wasting; greedy lamiae will suck their blood. The evil eye affects them more than it does grown-up people, and to counteract these perils mothers will subject their children to tortures innumerable. If the child is weakly, and nereid-struck, it must be left naked on the cold marble altar in church for some hours; if a child is in any way distorted, it has been struck by a nereid's laugh, they say, and the only remedy is priestly exorcism — secret offices performed frequently by Papa Manoulas at the dead of night in church, for which he gets a loaf and a cheese.

Children's necks are one mass of amulets and charms to protect them from the unseen dangers, like those in antiquity they wore to avert the glance of the god Fascinus. Old Marigo is especially skilled in making these articles. Whenever there is a new oven built, the first loaf baked is stamped with the Church's seal, I.X.N. Marigo secures this, and sells it afterwards to a parent who is rich enough to invest in so valuable a phylacteries for his child. She has her charms to ward off erysipelas and warts. On the first of May she binds round her patients' waists branches of mallow, that their stomachs may not ache; and on the first of March she sees that every inhabitant binds round an arm or a finger a bit of red string as a charm against fevers; these they cut off on Easter Sunday, and burn in the churchyard, saying, as they do so, that they are sending the fevers to the Jews.

Marigo's remedies, we discovered, were especially based on the theory that "pre-

vention is better than cure;" and then there are so many chances against individuals suffering from the complaints that she professes to ward off that she is generally sure of success. When we left Mesochorion, we did so with Marigo's curses ringing in our ears. She had been exceedingly kind to us, she said, and she had taught us valuable secrets unknown in our land, the only equivalent for which was a far larger sum of money than we thought fit to offer. In spite of her curses we reached the village of Olympus in safety, with only one mishap — our baggage-mule took to kicking, and scattered the mountain-side with dearly treasured provender.

J. THEODORE BENT.

From Nature.
ON VARIATIONS OF THE CLIMATE IN THE
COURSE OF TIME.*

IF we examine the meteorological charts of Norway we observe at once what a great influence the sea and the mountains exercise over the climate in various parts. Nearly all the climatological lines run more or less with the shape of the coast, so that we encounter far greater variation when proceeding from the centre coastwards than from south to north. In keeping with the same are the variations of the flora.

The plants of Norway may be divided into certain groups of species, the species belonging to the same group having a somewhat similar extension, whilst each of these groups of species is confined to special climatological conditions, and is only found in those parts where such prevail. The Norwegian flora is in the main monotonous. On the mountains large areas are covered with only a few lichens, mosses, and heather, or copses of dwarf birch, juniper, and willows; lower down the forests are formed of birch, fir, and spruce, and have a monotonous flora, viz., heather and lichen in the fir forests, "blue" berries and a few kinds of moss in

* The following is a short abstract from various papers, viz.: "Essay on the Immigration of the Norwegian Flora during Alternating Rainy and Dry Periods" (Christiania, 1876). "Die Theorie der wechselnden kontinentalen und insularen Klimata," in Engler's *Botanische Jahrbücher*, ii. (Leipzig, 1881). "Über Wechsselflagerung und deren thermatische Bedeutung für die Zeitrechnung der Geologie und für die Lehre von der Veränderung der Arten," in *Biologisches Centralblatt*, iii. (Erlangen, 1883). "Über die wahrscheinliche Ursache der periodischen Veränderungen in der Stärke der Meeresströmungen," *L. c.*, iv. (Erlangen, 1884).

the spruce forests, whilst the west coast is covered with heather, and the numerous marshes with a vegetation, poor in species, of a few mosses and *Carices*.

But in spite of this general monotony of the flora of the mountain wastes, with their grayish-yellow lichens, grayish-green and green copses of willows or dwarf birch, there are certain places, particularly on slaty ground, where a rich vegetation may be found. It consists of small perennial plants some inches in height, and which are particularly distinguished by their copiousness of flowers, which are very large in proportion to the size of the plant, and have very pure and lovely colors. Outside Norway we also encounter these plants in Arctic regions, and the Alpine flora of these slaty tracts is therefore of Arctic character. But not all slate mountains have such a varying flora. The coast climate is, in consequence of the mild winters, when the temperature frequently changes, destructive to these plants, which shoot at a very low degree of heat. It is for this reason that, when we mark those places on the map which have a rich Alpine flora, they lie scattered as oases over the land with great spaces between them, but always sheltered from the sea winds, i.e., on the east or northeast side of the highest mountains and greatest glaciers, which act as barriers against the mild climate of the coast. In these places the botanist may fancy himself transferred to Spitzbergen or north Greenland; he finds the principal plants encountered there, and if we follow the Arctic flora to Spitzbergen we find that here also it shuns the sea, and is most copious in the bottom of the fjords.

In the lower districts, sheltered from the open sea, we find in favorable spots another group of plants which also shun the coast, and which thrive on loose slates and warm limestone cliffs, or in screes of different kinds of rock, under precipitous mountains, facing the sun. These screes are generally full of bare boulders at the bottom, but in the finer debris higher up grows a wreath of green underwood, formed of tender deciduous trees and shrubs, hazel, elm, lime, maple, dog-roses, *Sorbus aria*, *Prunus avium*, wild apple, etc., as well as a number of highly scented *Labiateæ*, several *Papilionaceæ*, grasses, and a great number of other plants, together forming that part of the Norwegian lowland flora which shuns the open sea-coast, and prefers the fjords and the sunny valleys. But even this flora has a scattered extension. It is richest in the tracts

around Christiania, and becomes poorer westwards along the coast, disappearing almost entirely on the coasts of the province of Bergen; but at the bottom of the Sogne and Hardanger, and along the Throndhjem fjords we find the same flora, and that in spite of these parts being entirely separated by enormous mountains.

Near the open sea the flora becomes poorer in species, most of those characteristic of the interior disappearing, whilst their number is not by far made up by those belonging to the coast. Here we shall only name a few of the coast plants, such as the holly, the ivy, and the fox-glove, whilst in place of the *Primula veris* of east Norway we have the *Primula acaulis* of the west coast. In the woodless tracts of the coast the heather predominates, and besides the ordinary common one we find two other species. This group of plants belongs exclusively to the south and west coasts, and is hardly found north of Throndhjem fjord. Most of its species are not found near Christiania, but they reappear in the south of Sweden. Some, however, are in Scandinavia only found on the west coast of Norway, and we must travel to the Faroe Islands, Scotland, England, and Belgium to re-encounter them.

We have thus seen that the Norwegian flora consists of groups of species which make different demands as to climate. If we were to color a map according to the places where certain groups are most copious, we should at once discover that they had a scattered distribution. We should find the same color here and there, in smaller or larger patches, but those of the same color would be separated by great spaces of a different tint.

At one time botanists were satisfied with explaining the distribution of species through soil and climate, but as the study of their appearance proceeded it was discovered that there were great gaps in the extension of many. And these gaps were often so great that scientific men were obliged to resort to explaining the same by maintaining that such species were created in places far apart. But since the doctrine of the origin of species by descent has been accepted, such an explanation must be rejected. There remains, therefore, only two ways in which to explain these things. Either wind, animals, or sea-currents are capable of carrying the seed of plants at once across such large areas that the gaps in the extension can be explained by the means of transport at work at present, and there are even

those who still believe that this is the case. In certain instances this explanation is indeed the only one possible, when, for instance, it concerns the flora and fauna of the oceanic islands which have never been connected with the great continents, and still have species more or less related to those of the mainland. But such a sudden migration is very improbable, and may even be dispensed with altogether, as we shall presently show, when it is necessary to explain such gaps in the extension of whole groups of species as those we have pointed out above in the flora of Norway.

We have, besides, another explanation of this problem, first advanced by Mr. Edward Forbes, who maintained, in common with most modern botanists, that the climatic variations of the past are reflected in the fauna and flora of the present. He was, we believe, the first savant who demonstrated that the Glacial Age has left its distinct mark on the flora of the present day. Arctic species are found on mountains in temperate climates. During the Glacial Age these species grew in the plains at lower latitudes, but as the climate became milder they receded gradually to the far north and the high mountains. In the warm plains they had to give way to the new immigrants, and this is the reason of our discovering hyperborean plants on the mountains of Europe.

If now we were to apply this explanation to the scattered extension of the species in Norway, we must bear in mind that the distances here are smaller, although at times there are several degrees of latitude between the places where the same appear. We must, therefore, see if an acceptable explanation of the extension of the Norwegian flora can be made by means of geology, and if the same be supported by other circumstances.

It is not long since, geologically speaking, that the Scandinavian peninsula was covered with an inland ice, stretching right out to sea, above which only solitary mountain-tops rose, like the *nunataks* in Greenland. It is evident that the majority of the present flora could not then exist in Norway; but the present flora is older than the Glacial Age, which is conclusively proved by specimens from the same being found in coal strata older than that period. Thus yew, fir and spruce, hazel, willow, etc., have been found in old peat-bogs of England and Switzerland, for instance, which are covered by the bottom moraine of the inland ice. The present Norwegian flora, therefore, must

have lived in other countries which were free from ice during the Glacial Age, and immigrated to Norway as the climate became milder and the ice receded. This is the reason of Scandinavia having no peculiarly characteristic species, because the flora has immigrated from outside countries, and the time is so short since it settled in the country that it has not yet had time to produce new species.

If we may now apply the geological theory of explanation to the flora, we come to the conclusion that the immigration took place during repeated changes in the climate. After several thousands of years with a severer climate which favored the immigration and extension of northern and eastern species, other thousands of years followed with a milder climate. During this period fresh immigrants came from the south and south-west, compelling the older flora to retreat. In this manner the climate must have changed several times since the Glacial Age, and the distribution of the plants must have changed in accordance therewith. The periods of variation are reflected in the present flora, and it is the former which have led to the great gaps in the extension of coast as well as inland plants. The sunny screes, the slate districts, and the moist coast tracts are asylums where the different floras have found refuge. In the intermediary parts they have been dislodged by the newcomers. But certain species, being indifferent to the variations, extended constantly, at the expense of others, and this is the reason of the Norwegian flora being so monotonous.

In order to test the accuracy of this assertion we shall first turn to the peat-bogs and examine their structure. We shall, for comparison's sake, also examine the Danish ones, which are well known from the researches of Professor Steenstrup.

In the forest and mountain districts of Norway there are innumerable marshes. In the forest districts most of them are now comparatively dry, the heather and wood covering parts of the bog, and on the surface of the latter tiny mossy knolls are often found, in the middle of which stands the old stump of a tree. An examination of the structure of the peat layers — which is easily made with a bore — shows that previous to the present time, when the surface is generally more or less dry, there was a period when the bog was much more watery. Under the present conditions the growth of the peat is arrested, at all events in dry places. But

just below the lichen and heather-covered surface we find on boring a pure, unmixed white moss (*Sphagnum*). It is this moss in particular which has formed the peat in the Norwegian bogs; and in the upper layers — only one or two feet from the surface — flint implements from the Stone Age are often found. At the period when this upper layer of *Sphagnum* was formed, the bogs were woodless because they were too watery. We see, therefore, that the peat in these bogs has not grown very much within historical times, and that the layer of stumps of trees, which are found on the surface in the knolls, indicates an arrest of the growth of the peat, the duration of which may probably be measured by many hundreds, perhaps by thousands of years. It might be argued that the present drier state of the bogs was simply due to the circumstance that the peat had grown so high that the moisture had run off. But this is not an acceptable explanation, because if we bore deeper in the peat we find that the oldest bogs are built of four layers of peat, and between these stand three layers of stumps, so that these bogs are for the fourth time covered with trees since they began to form. And as most of the bogs, if not all, are at present drier than they were before, the theory of merely local variations of the moisture is also insufficient to explain the phenomena. It remains, therefore, only to assume that periods of dry and wet have alternated during ages. The peat layers generally belong to the latter, and the stump layers speak of drier periods, when the bog was covered with trees.

Of these four layers of peat, which in some places measure upwards of twenty-six feet in thickness, only the two youngest inclose, as far as the researches in Norway go to show, remains of foliferous trees sensitive to cold. And this justifies the assumption that they correspond to the four layers which Steenstrup has shown in the bogs of Denmark, and which appear like geological strata with distinct fossils, viz., the aspen, the fir, the oak, and the black alder. This comparison of the peat layers of Norway and Denmark is further supported by the circumstance that layers of stumps are also found in the Danish bogs, and here, too, they stand between the peat layers of the various periods. They indicate long periods, during which also the Danish bogs were dry and partly covered with forests, when the peat ceased to grow. But during these dry times the flora was changed through the immigration of new species, and when

a wet time again set in, it was other trees which grew around the bogs, and which spread their boughs, leaves, and fruits over the watery bog, and the remains of which were buried by the growing layers of peat.

In this manner the structure of the peat confirms the conclusion to which the distribution of the flora pointed, and if we take the fossil plants and marine shells to our aid we may explain the gaps in the extension of the species without assuming long transports of seed.

In the freshwater clay of Scania and Seeland, Professor Nathorst has discovered numerous remnants of Arctic plants. This clay lies below the peat. When it was deposited in the cavities of the old bottom moraines of the inland ice, not only the dwarf birch, but even hyperborean plants, such as the Arctic *Salix polaris* and others, flourished in the southernmost parts of Scandinavia; therefore the Arctic flora was the first which immigrated into Scandinavia. It entered whilst the climate was very severe; but the climate became milder and more moist; the peat began to form; then the aspen and birch entered, and, later on, under varying conditions of moisture, the fir and the spruce, with the flora of the mountains and forest glens, a series of species which have not yet been mentioned, viz., *Mulgedium* and *Aconitum*, many great ferns and grasses, wood geraniums, and lychnis, etc. But the climate became warmer and warmer; and finally the foliferous trees, more sensitive to cold, entered, viz., the hazel, the lime, the ash, the oak, the maple, and a number of others from warmer regions. In the province of Bohus quantities of stones of sweet cherries are found in many places, in peat, where this tree is now extinct; and in the Norwegian peat-bogs hazel-nuts are very frequent in a certain layer, not only in the interior of the great coniferous forests, where not a single hazel-tree is found, but even in the heathery, woodless coastlands. It will, therefore, be seen that the hazel and the sweet cherry were then very plentiful, and from this we may justly conclude that the trees, and shrubs, and herbs which thrive in their company were also once far more plentiful than at present. It is this flora which has found an asylum in the above-mentioned screes.

Following the period when southern Norway was covered with foliferous forests to a far greater extent than now came a warm and moist one, in which the peat again began to grow. At that time the

coast oak (*Quercus sessiliflora*) was far more frequent than at present, judging by the evidence of the peat-bogs, and at that time, the shell deposits inform us (as shown by Professor M. Sars), the present marine animals of the west coast were found in the Christiania fjord. *And there is every reason to assume that the present flora of the west coast immigrated thither at that period from the south of Sweden along the Christiania fjord to the west coast.*

New changes again set in, with new immigrants, and finally came the present age with its comparatively dry climate. But all these events are prehistoric, as is shown by the stone implements lying in the uppermost peat layer, close under the surface.

Thus, the remains of plants and animals in clay, peat, and shell deposits inform us that the gaps in the extension of the species in Norway may be explained by the varying events of times long gone by.

Since the Glacial Age the relation between sea and land in Norway has changed. Formerly the sea was in some places upwards of six hundred feet higher than at present.*

The clay at that time deposited on the sea-bottom, and the shell deposits formed near the shore, contain, as Professors M. Sars and Kjerulf have taught us, remains of Arctic animals even in the southernmost parts of the country. There is a difference of opinion between savants whether this alteration of the shore-line is due to a rising of the land or the sinking of the sea, or to both. There is further some dispute about the manner in which the level became altered, some maintaining that it took place suddenly at intervals, whilst others believe that it is the result of a gradual and continuous process. The marks left by the sea seem at first glance to corroborate the first of these theories. Thus, in the lower parts of our valleys we find along the river-courses terraces of sand, pebbles, and clay, one behind and above the other right up to the highest old shore-line. The terraces, of which Kjerulf, pre-eminently amongst others, has given us particulars, have an even surface and a steep declivity outwards against the mouth of the valley.

* The depth of the peat in the parts which were formerly below the sea increases with the height above its surface, because the formation of the peat commenced long before the lowest-lying parts had risen above the surface. From the remains of plants found in the various peat layers we may therefore learn how the Norwegian flora was composed during the various phases of the rising of the land.

They contain sometimes remains of sea animals. Under a higher level of the sea the river carried down sand and gravel to its mouth, just as in the present day banks and bars are formed at the estuary of our rivers. And the terraces seem to indicate that the changes in the level were broken by periods of rest. During the latter the river had time to form a bank, which rose comparatively rapidly; the next period of rest gave occasion to the formation of another terrace, and so on. But this theory has to combat many obstacles, because the terraces lie often, as Professor Sexe has shown, even in valleys situated near each other, at different elevations. The professor is of opinion that step-like terraces may be formed even under a gradual and steady rising, if the carrying-power of the river is subjected to changes. Our theory may therefore probably also be applicable for explaining the terraces, because, if long periods with milder climate have alternated with others whose climate was more severe, it is evident that the volume of water, and thus the carrying-power of the current, may have altered. Perhaps the rivers have at certain times carried down floating ice, at others not, and the thaw in the spring must have increased the carrying-power. We can thus understand why the corresponding terraces in valleys near each other do not always lie at the same elevation. Their rivers differ in size, and when the carrying-power diminishes a big river will retain the strength to form a terrace longer than a small one.

Besides these terraces, which are particularly conspicuous in the short, steep valleys on the west coast of Norway, and on account of their regularity must excite the admiration of every one who sees them, there are other equally striking marks of the old sea-levels, viz., the so-called *Strandlinjer*—shore-lines—which are known chiefly through the researches of Professor Mohn and Dr. Karl Pettersen.

When travelling through the fjords and sounds, particularly in northern Norway, one sees here and there horizontal lines drawn along the mountain-sides, sometimes several hundred feet above the sea. They are not always equally marked, but appear often remarkably clear; sometimes they look like roads or railway lines. They are always horizontal, or nearly so, and must, therefore, be remains of an old seashore. Often two parallel lines are seen running one above the other in the same place; and on closer inspection it will be

discovered that they are hollowed out of the rock itself. They have a surface sometimes many feet broad, and are bounded behind by a more or less steep mountain wall, forming thus horizontal incisions in the same. The shore-lines have also been brought to prove that the rising was broken by periods of rest during which the sea had time to hollow out the rock; but I am of opinion that they could be formed too, under a gradual rising, if the climate be subjected to periodical changes. The shore-lines belong to the northern parts of the country and the deep fjords, where the winter cold is more severe, and they are only found in districts where there is a tide. They seem to have been blasted out by the influence of the cold. At high tide the sea water fills the holes and fissures in the rock, and when the tide recedes it is left in the same. In severe winters the water will freeze, and thus burst the rock. During the rising of the land, shore-lines will be broken out in this manner, as long as the erosion is able to keep pace with the rising. When the climate becomes milder, a time will come when the erosion is unable to continue. Then the shore-lines will be lifted up above the level of the sea, and out of the reach of the blasting influence of the water. If next, after thousands of years, when the land has perhaps risen fifty or a hundred feet, a period follows with a severer climate, a new shore-line is formed below the former.

The shell-banks, too (*i.e.*, deposits of shells of marine animals living in shallow water near the shore) lie, as Kjerulf has shown, in the Christiania fjord at different levels, the oldest at heights of from five hundred and forty to three hundred and fifty feet, and the youngest between two hundred feet and fifty feet above the present level of the sea. But between three hundred and fifty and two hundred feet none has been found. In the neighboring Swedish province of Bohus they are found at all elevations, even between three hundred and fifty and two hundred feet, and it must therefore be assumed that local causes, as, for instance, the ice formation in the more closed Christiania fjord, destroyed the shell-banks when they reached the shore line, at a period when the land lay from three hundred and fifty to two hundred feet lower in relation to the sea than at present. According to the evidence of the peat-bogs, there is reason to believe that this part of the rising occurred under a more severe climate.

It is therefore seen that all the facts which have been advanced in order to prove that the rising was broken by periods of rest may be easily explained, if we assume that the land rose gradually and steadily under periods alternating with milder and severer climates.

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From St. James's Gazette.
THE FIRST WATER-MEADOW.

THREE centuries ago water meadows were unknown in England; and here follows a brief account of how the first of them was made.

Master Rowland Vaughan, a gentleman of Herefordshire, was a courtier and soldier of no mean figure in the "spacious times of great Elizabeth." He was engaged for some years in the wars of Ireland; but an unconquerable yearning for home made him decline service in the Low Countries. In this he was supported by his wife; and, both having a great love for the country and a passion for its pursuits, they withdrew into the beautiful Herefordshire valley on the Welsh border in which lay Vaughan's patrimonial estate. He was a man of some information, and of such ingenuity and resource in agriculture that there came to be a saying in his part of the country, "If Master Vaughan had these and these grounds he would do this and this." But he was mainly possessed by one idea. He was bent upon improving the immethodical systems of irrigation which then prevailed. His demesne was in a country of running brooks; but irrigation was so poorly practised that a few weeks' drought often neutralized all the promise of the year. It grieved him to the heart: "Having so many rivers, brooks, fountains, and springs, which ran idly into the sea; without weare, sluice, stay, stanke, or dam, to turn some part of them upon grounds that needed them."

Vaughan had an old servant, a joiner by trade; with whom many a consultation was held as to the mode of compassing that which lay so near the master's heart. But a more able engineer than either was to suggest the plan that was adopted. The way in which Vaughan was led to consult this skilful artificer is best told in his own words, as set down in the little book published by him in 1610. "In the month of March (some fifteen years be-

fore) I happened to find a mole or wont's nest raised on the brim of a brook in my mead, like a great hillock; and from it there issued a little stream of water (drawn by the working of the mole) down a shelving ground one pace broad and some twenty in length. The running of this little stream did at that time wonderfully content me, seeing it pleasing green, and that other land on both sides was full of moss and hide-bound for want of water. This was the first cause I undertook the drowning of grounds." The interior of a mole's borough is a most skilful piece of workmanship. Its various galleries, trenches, and runs are formed with almost mathematical regularity; and the "work" when seen in section has the appearance of a regular fortification in miniature. Moles are pertinacious in their quest for worms and grubs; and in dry weather burrow instinctively in the direction of water. What had happened, therefore, was alike simple and natural. The animal had completed its habitation; but, throwing out yet another gallery, had unwittingly "tapped" the brook, which immediately flooded the burrow, and was conducted through its numerous channels until it found its way to the surface. This incident was Vaughan's inspiration; and to work he and his henchman went.

The least detail of their proceedings would be too intricate for production here. The whole country-side was amazed as the news of Master Vaughan's extraordinary proposals was noised abroad. Of course the first necessity was to conciliate the neighbors; and his difficulties herein were curiously like those which may be experienced by any honest country gentleman ambitious of "improvements" in the present day. Here is a touch which is evidently enough of nature: "I acquainted them with my purpose. The one, being a gentleman of worth and good-nature, gave me leave to plant one end of my weir on his side the river; the other, my tenant, being very aged and simple, by no persuasion I could use would yield his consent, alleging it would mar his grounds — yea, sometimes his apple-trees; and men told him water would raise the rush, and kill his cowslips, which was the chiepest flower

his daughters had to trick the Maypole withal. All which, with silence, I past over for a time, knowing his simplicity to exceed his discretion." In the end, however, the landlord prevailed, and he was allowed to cut the first turf of his "trench-royal" and thus inaugurate a system till then entirely unpractised in England. Then there were winter and summer trenches, double and treble trenches, a traversing and an everlasting trench, and others which, in a map, the designer "more lively expressed," and which it is impossible to express without it. Says Vaughan of this part of his labors: "The inhabitants summoned a consultation against me and my man John, saying our wits were in our hands, not in our heads; and so for three or four years we both lay level to the whole country's censure for such engineers as their forefathers heard not of, nor they well able to endure without merriment."

But the scheme was pursued to completion, and the laugh reverted to the winning side. "As the river Nilus drowns Ægipe from the Abisine mountains, enriching the country, so did the muddy floods from the upper part of the golden valley improve my estate beyond beliefe." Vaughan ultimately brought a thousand acres under the water-meadow system, the produce of which it increased threefold; and so was his purpose — "to raise a golden world for the commonwealth, in the golden vale of Hereford" — abundantly fulfilled.

Many a less curious and deserving book than this of Vaughan's has been reprinted with all the dignity which "extra margin" and the adoption of a learned society can confer. Its honest simplicity is thoroughly refreshing. The writer truly says, "What is here bluntly expressed was first of all sharply conceived, with much whetting of wit, and no less filing of invention." In a postscript is given an invitation, which shows that Vaughan had other claims to be regarded as a man of original ideas. It runs thus: "Those that are desirous to see a mill sawing timber, here shall their desires be fully satisfied, seeing a mill by a water-course keep a dozen sawes on work together."